DSR-PD100/PD100P

RMT-811

SERVICE MANUAL











MEMORY STICK

C MECHANISM



US Model Canadian Model DSR-PD100

AEP Model
DSR-PD100P

Photo: DSR-PD100

NTSC model: DSR-PD100 PAL model: DSR-PD100P

Digital Camcorder

System

Video recording system
Two rotary heads, Helical scanning

system
Audio recording system
Rotary heads, PCM system
Quantization: Fs 32kHz (12bits,
stereo 1, stereo 2), Fs 48kHz (16bits,

Video signal
DSR-PD100: NTSC color, EIA
standards

DSR-PD100P: PAL color, CCIR standards

Usable cassette
Mini DVCAM cassette with logo
printed
Tape speed

DSR-PD100: Approx. 28.218 mm/s DSR-PD100P: Approx. 28.246 mm/s Recording/playback time 40 minutes (PDVM-40ME) Fast forward/rewind time Approx. 2 min. 30 s (PDVM-40ME)

Image device 3CCD (Charge Coupled Device 1/4")

Viewfinder Electric viewfinder (c

Electric viewfinder (color) Lens

Combined power zoom lens, 48x (Digital), 12x (Optical)

SPECIFICATIONS

Focal distance

f = 4.3 to 51.6 mm ($^3/16$ to $2^{-1}/s$ in.) (41.3 to 496 mm ($^{1.1}/16$ to $19^{-5}/s$ in.) when converted into a 35 mm still camera) $F_{1.6} = 2.8$

TTL autofocus system inner focus

wide macro system

Color temperature

Auto, ♣One push, ♠Indoor (3200K), ☀Outdoor (5800K) Minimum illumination

4 lux at F 1.6 Illumination range 4 to 100,000 lux

Recommended illumination More than 100 lux

LCD screen

Picture

3.5 inches measured diagonally 72.4 x 50.4 mm (2 ⁷/8 x 2 in.) On-screen display TN LCD/TFT active matrix method Total dot number 184,580 (839 x 220)

Input and output connectors

S VIDEO input/output
Input/output auto switch
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 ohms,
unbalanced, sync negative
Chrominance signal: 0.286 Vp-p
(DSR-PD100), 0.3 Vp-p (DSRPD100P), 75 ohms, unbalanced

Audio/Video input/output

Input/output auto switch
AV MINI JACK, 1 Vp-p, 75 ohms,
unbalanced, sync negative
327 mV, (at output impedance
more than 47 kilohms)
Output impedance with less than
2.2 kilohms/Stereo minijack
(Ø 3.5mm)
Input impedance more than
47 kilohms
DV input/output

4-pin special connector Headphones Stereo minijack (ø 3.5 mm)

MIC input Stereo minijack (ø 3.5mm):0.388mV, DC2.5V

Input impedance 6.8 kilohms **CLANC** jack
Stereo miniminijack (ø 2.5 mm)

General

Power requirements
7.2 V (battery insertion input)
8.4 V (DC IN jack)
Average power consumption
4.3 W during camera recording
using viewfinder
5.3 W during camera recording
using LCD screen
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
-20°C to 60°C (-4°F to 140°F)
Dimensions
Approx. 93 x 112 x 193.5 mm (w/h/d) (3 ³/4 x 4 ¹/2 x 7 ⁵/8 in.)

Mass

Approx. 900 g (1 lb 16 oz) excluding the battery pack and the cassette. Approx. 985 g (2 lb 3 oz) including the XLR adaptor Approx. 1.28 kg (2 lb 13 oz) including the XLR adaptor, wide conversion lens and wide conversion lens hood.

Microphone

See page 2.

Electret condenser microphone, Stereo type Speaker Dynamic-speaker Supplied accessories

AC power adaptor

Power requirements
100 to 240 V AC, 50/60 Hz
Power consumption
23 W
Output voltage
DC OUT: 8.4 V, 1.5 A in operating mode
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
-20°C to 60°C (-4°F to 140°F)
Dimensions (Approx.)
125 x 39 x 62 mm (w/h/d) (5 x 19/16 x 2 1/1 in.)
Mass (Approx.)
280 g (9.8 oz) excluding power code

Continued on next page







PC card adaptor

Host interface PC card ATA/True IDE standards Operating voltage 3.3 V/5V Operating environment 0°C to 60°C (32°F to 140°F) (noncondensing) Dimensions (Approx.) 85 x 54 x 5 mm (w/h/d) (3 ³/8 x 2 ¹/4 x ²/32 in.) Mass (Approx.) 30 g (1 oz)

Memory stick

Memory type Flash memory Voltage 2.7 to 3.6 V Power consumption About 4.5 mA About 130 mA at stndby Clock Maximum 20 MHz Operating environment 0°C to 60°C (32°F to 140°F) (noncondensing) Dimensions (Approx.) 21.5 x 50 x 2.8 mm (w/h/d) (7/8 x 2 x 1/8 in.) Mass (Approx.) 4 g (0.2 oz)

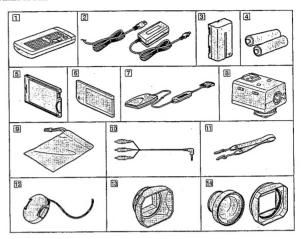
Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

• SUPPLIED ACCESSORIES

Check that the following accessories are supplied with your camcorder.



- 1 Wireless Remote Commander (1)
- [2] AC-L10A AC power adaptor (1), Power cord (mains lead) (1) The shape of the plug varies from region to
- 3 NP-F330 battery pack (1)
- 4 Size AA (R6) battery for Remot
- 5 PC card adaptor (1), PC card adaptor case (1)
- 6 Memory stick (1), memory stick case (1), label (1)
- PC card/parallel port adaptor (1), Power cord (1), Adaptor connector (1), CD-ROM (1)

- 8 XLR adaptor (1)
- ② Pouch for XLR adaptor (1)

 When not using the XLR adaptor, put the adaptor into the pouch.
- 10 A/V connecting cable (1)
- 11 Shoulder strap (1)
- 12 Lens cap (1)
- 13 Lens hood (1)
- Wide conversion lens (1), wide conversio lens hood (1)

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE & SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- 2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, through functioning, show obvious signs
 of deterioration. Point them out to the customer and
 recommend their replacement.
- 5. Check the B+ voltage to see it is at the values specified.
- 6. Flexible Circuit Board Repairing
 - Keep the temperature of the soldering iron around 270°C during repairing.
 - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
 - Be careful not to apply force on the conductor when soldering or unsoldering.

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SERVICE NOTE

1. POWER SUPPLY DURING REPAIRS

In this unit, about 10 seconds after power is supplied (8.4V) to the battery terminal using the service power cord (J-6082-223-A), the power is shut off so that the unit cannot operate.

This following two methods are available to prevent this. Take note of which to use during repairs.

Method 1.

Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the remote commander switch to the "ADJ" side.

Method 2.

Press the battery switch of the battery terminal using adhesive tape,

Method 3.

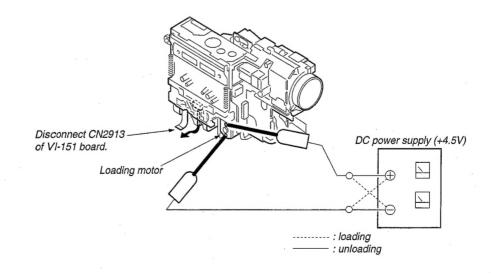
Use the AC power adaptor.

2. HOW TO TAKE A CASSETTE OUT WHEN THE MAIN POWER CANNOT BE TURNED ON

Note: To take a cassette out forcibly as follows when the main power cannot be turned on, remove the cassette lid, cabinet (L) and cabinet (R). Apply +4.5 V power from an external power supply to the loading motor, as shown below. Refer to sections 2-1 and 2-2 for the procedure to remove the cabinet (L) assembly.

Procedure:

- 1) Disconnect the CN2913 of VI-151 board.
- 2) Apply +4.5 V directly to the loading motor as shown to drive the loading motor that ejects a cassette.



SELF-DIAGNOSIS FUNCTION

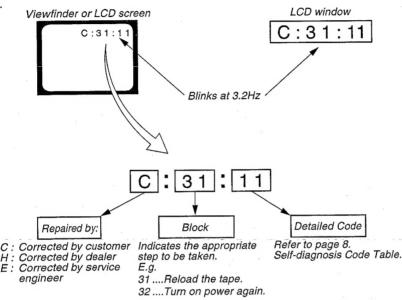
1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, LCD screen or LCD window what to do. This function consists of two display; self-diagnosis display and service mode display.

Details of the self-diagnosis functions are provided in the Instruction manual.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder, LCD screen or LCD window consists of an alphabet and 4-digit numbers, which blinks at 3.2 Hz. This 5-character display indicates the "repaired by:", "block" in which the problem occurred, and "detailed code" of the problem.

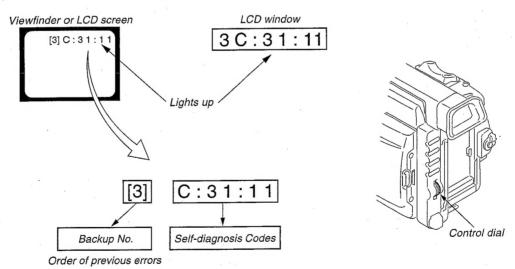


3. SERVICE MODE DISPLAY

The service mode display shows up to six self-diagnosis codes shown in the past.

3-1. Display Method

While pressing the "STOP" key, set the switch from OFF to "VTR or PLAYER", and continue pressing the "STOP" key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.



3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

- [1]: Occurred first time
- [4]: Occurred fourth time
- [2]: Occurred second time
- [5]: Occurred fifth time
- [3]: Occurred third time
- [6]: Occurred the last time

3-3. End of Display

Turning OFF the power supply will end the service mode display.

Note: The "self-diagnosis display" data will be backed up by the coin-type lithium battery of CK-80 board BT7200. When this coin-type lithium battery is removed, the "self-diagnosis display" data will be lost by initialization.

4. SELF-DIAGNOSIS CODE TABLE

S	Self-diagnosis Code		agnosis Code				
Repaired by:		ock etion	Deta Co		Symptom/State	Correction	
C	2	1	0	0	Condensation.	Remove the cassette, and insert it again after one hour.	
С	2	2	0	0	Video head is dirty.	Clean with the optional cleaning cassette.	
C	2	3	0	0	Non-standard battery is used.	Use the info LITHIUM battery.	
С	3	1	1	0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.	
C	3	1	1	1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.	
С	3	1	2	0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.	
C	3	1	2 ·	1	Winding S reel fault when counting the rest of tape.	Load the tape again, and perform operations from the beginning.	
C	3	1	2	2	T reel fault.	Load the tape again, and perform operations from the beginning.	
C	3	1	2	3	S reel fault.	Load the tape again, and perform operations from the beginning.	
С	3	1	2	4	T reel fault.	Load the tape again, and perform operations from the beginning.	
C	3	1	3	0	FG fault when starting capstan.	Load the tape again, and perform operations from the beginning.	
C.	.3	1	4	0	FG fault when starting drum.	Load the tape again, and perform operations from the beginning.	
C	3	1	4	2	FG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.	
С	3	1	1	0	LOAD direction loading motor time- out.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	1	1	1	UNLOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	2	0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	2	1	Winding S reel fault when counting the rest of tape.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	2	2	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	2	3	S reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	2	4	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	3	0	FG fault when starting capstan.	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	4	0	FG fault when starting drum	Remove the battery or power cable, connect, and perform operations from the beginning.	
С	3	2	4	2	FG fault during normal drum operations	Remove the battery or power cable, connect, and perform operations from the beginning.	
Е	6	1	0	0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus reset sensor (Pin ® of CN500 of VC-208 board) when focusing is performed when the control dial is rotated in the focus manual mode, and the focus motor drive circuit (IC500 of VC-208 board) when the focusing is not performed.	
Е	6	1	1	0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom reset sensor (Pin ② of CN500 of VC-208 board) when zooming is performed when the zoom lens is operated and the zoom motor drive circuit (IC500 of VC-208 board) when zooming is not performed.	
Е	6	2	0	0	Steadyshot function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect pitch angular velocity sensor (SE451 of SE-75 board) peripheral circuits.	
Е	6	2	0	1	Steadyshot function does not work well. (With yaw angular velocity sensor output stopped.)	Inspect yaw angular velocity sensor (SE450 of SE-75 board) peripheral circuits.	

SECTION 1 GENERAL

DSR-PD100/PD100P

This section is extracted from instruction manual.

Before you begin Using this manual

The instructions in this manual are for the two models listed below. Before you start reading this manual and operating the unit, check your model number by looking at the bottom of your camcorder. The DSR-PD100 is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, "DSR-PD100 only."

As you read through this manual, buttons and settings on the camcorder are shown in capital letters.
e.g., Set the POWER switch to CAMERA.

Model number	Color system	Drop frame system	
DSR-PD100	NTSC	Drop frame or non-drop frame	
DSR-PD100P	PAL	_	

Note on Cassette Memory

This camcorder is based on the DVCAM format. You can only use mini DVCAM cassettes with this camcorder. We recommend you to use a tape with cassette memory CIV.

The functions which depend on whether the tape has the cassette memory or not are:

• End Search (p. 22, 25)

• Date Search (p. 73)

• Photo Search (p. 76).

- The functions you can operate only with the cassette memory are:

 Title Search (p. 75)

 - Superimposing a title (p. 63)
 Making a custom title (p. 66)
 Labeling a cassette (p. 68).
- For details, see page 116.

Note on TV color systems

TV color systems differ from country to country.

To view your recordings on a TV, you need an NTSC system-based TV (DSR-PD100).

To view your recordings on a TV, you need a PAL system-based TV (DSR-PD100P).

Precaution on copyright

Television programs, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright

Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the cannorder, video tape, etc.

Precautions on camcorder care

- The LCD screen and/or the color viewfinder are manufactured using high-precision technology. However, there may be some tiny black points and/or bright points (red, blue or green in color) that constantly appear on the LCD screen and/or in the viewfinder. These points are normal in the manufacturing process and do not affect the recorded picture in any way. Over 99.99% are operational for effective use.

 Do not let the camcorder get wet. Keep the camcorder away from rain and sea water. Letting the camcorder get wet may cause the unit to malfunction, and sometimes this malfunction cannot be repaired [a].

 Never leave the camcorder exposed to tenperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight [b].



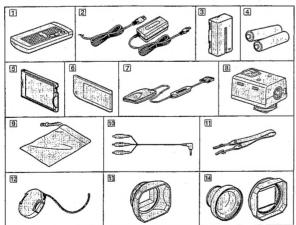


5

6

Checking supplied accessories

Check that the following accessories are supplied with your camcorder.



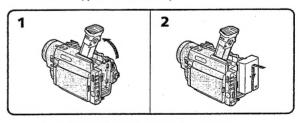
- Wireless Remote Commander (1) (p. 140)
- [2] AC-L10A AC power adaptor (1), Power cord (mains lead) (1) (p. 9, 27) The shape of the plug varies from region to
- 3 NP-F330 battery pack (1) (p. 8)
- 4 Size AA (R6) battery for Remote Commander (2) (p. 140) [5] PC card adaptor (1), PC card adaptor case (1)
- Memory stick (1), memory stick case (1), label (1) (p. 90)
- PC card/parallel port adaptor (1), Power cord (1), Adaptor connector (1), CD-ROM (1) (p. 91)
- [8] XLR adaptor (1) (p. 61)
- Pouch for XLR adaptor (1)
 When not using the XLR adaptor, put the adaptor into the pouch.
- fig A/V connecting cable (1) (p. 70, 80)
- [1] Shoulder strap (1) (p. 141)
- 12 Lens cap (1) (p. 13)
- 13 Lens hood (1) (p. 15)
- Wide conversion lens (1), wide conversion lens hood (1) (p. 62)

Getting started Installing and charging the battery pack

Before using your camcorder, you first need to install and charge the battery pack. To charge the battery pack, use the supplied AC power adaptor. This camcorder operates only with the "finicITHIUM" battery pack. "InfoLITHIUM" is a trademark of Sony Corporation.

Installing the battery pack

- Lift up the viewfinder.
 Insert the battery pack in the direction of the ▼ mark on the battery pack. Slide the battery pack down until it is locked.
 Attach the battery pack to the camcorder securely.



Note on installing the NP-F730/F730H/F750/F930/F950 battery pack Use the camcorder while stretching out the viewfinder.

Note on the battery pack
Do not carry the camcorder by grasping the battery pack.

alling and charging the battery pack

Charging the battery pack

Charge the battery pack on a flat surface without vibration. The battery pack is charged a little in the factory.

(1) Open the DC IN jack cover and connect the supplied AC power adaptor to the DC IN jack with the plug's A mark up.

(2) Connect the power cord to the AC power adaptor.

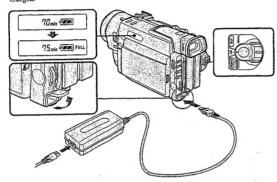
(3) Connect the power cord to a wall outlet.

(4) Set the POWER switch to OFF. Remaining battery time is indicated by the minutes on the display window. Charging begins.

When the remaining battery indicator becomes see, normal charge is completed. For full charge, which allows you to use the battery longer than usual, leave the battery pack attached for about 1 hour after normal charge is completed until FULL appears in the display window.

window.

Before using the camcorder with the battery pack, unplug the AC power adaptor from the DC IN jack of the camcorder. You can also use the battery pack before it is completely charged.



- Notes

 "--- min" appears on the display window until the camcorder calculates rem
- --- mm appears on the uspany whether the display window roughly indicates the recording time with the viewfinder. Use it as a guide. It may differ from the actual recording time.

10

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Installing and charging the battery pack

- Notes on remaining battery time indication during recording

 Remaining battery time is displayed on the LCD screen or in the viewfinder. However, the indication may not be displayed properly, depending on using conditions and circumstances.

 When you close the LCD panel or open it, it takes about 1
- circumstances.

 When you close the LCD panel or open it, it takes about 1 minute for the correct remain time to be displayed.

To remove the battery pack Lift up the viewfinder. While pressing I BATT RELEASE, slide the battery pack in the direction of the arrow.



Installing and charging the battery pack

Charging time

Battery pack	Charging time *	
NP-F330 (supplied)	150 (90)	
NP-F530	210 (150)	
NP-F550	210 (150)	
NP-F730	300 (240)	
NP-F750/NP-F730H**	300 (240)	
NP-F930	390 (330)	
NP-F950	390 (330)	

The time required for a normal charge is indicated in parentheses.

Approximate minutes to charge an empty battery pack using the supplied AC power adaptor. (Lower temperatures require a longer charging time.)

NP-F730H is sold only in the U.S.A.

Battery life While using with viewfinder

Battery pack	Continuous recording time *	Typical recording time **
NP-F330 (supplied)	70 (65)	40 (35)
NP-F530	115 (105)	55 (50)
NP-F550	145 (130)	70 (65)
NP-F730	260 (235)	135 (125)
NP-F750/NP-F730H***	300 (265)	160 (140)
NP-F930	405 (360)	210 (185)
NP-F950	465 (420)	235 (220)

While using with LCD

Battery pack	Continuous recording time *	Typical recording time **	Playing time with LCD
NP-F330 (supplied)	60 (50)	30 (25)	70 (65)
NP-F530	90 (80)	50 (45)	115 (105)
NP-F550	115 (100)	60 (50)	145 (130)
NP-F730	200(180)	110 (100)	260 (235)
NP-F750/NP-F730H***	240 (210)	135 (125)	300 (265)
NP-F930	310 (280)	170 (155)	405 (360)
NP-F950	360 (320)	200 (180)	465 (420)

- Numbers in parentheses indicate the time when you use a normally charged battery.

 Battery life will be shorter if you use the camcorder in a cold environment.

 Approximate continuous recording time indoors.

 Approximate minutes when recording while you repeat recording start/stop, zooming and turning the power on/ off. The actual battery life may be shorter.

 NP-F730H is sold only in the U.S.A.

Inserting a cassette

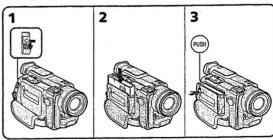
- You can use mini DVCAM cassette with [DVCAM]. logo*.

 Make sure that the power source is installed.

 (1) While pressing the small blue button on the EJECT switch, slide it in the direction of the arrow. The cassette compartment automatically opens.

 (2) Insert a cassette with the window facing out.

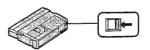
 (3) Close the cassette compartment by pressing the "PUSH" mark on the cassette
- compartment.
- * DVCAM is a trademark.



To eject the cassette While pressing the small blue button on the EJECT switch, slide it in the direction of the

To prevent accidental erasure

Slide and open the tab on the cassette to expose the red mark. If you try to record with the red mark exposed, the ® and ♠ indicators flash on the LCD screen or in the viewfinder, and you cannot record on the tape. To re-record on this tape, slide and close the tab to cover the red mark.



Basic operations

Camera recording

Make sure that the power source is installed and a cassette is inserted. Before you record one-time events, you had better make a trial recording to make sure that the camcorder is working correctly.

When you use the camcorder for the first time, power on it and reset the date and time to your time before you start recording (p. 118).

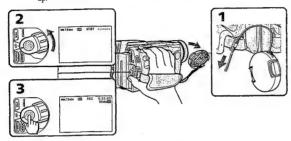
(1) Remove the lens cap by pressing both knobs on its sides and pull the lens cap string to fix it.

(2) While pressing the small green button on the POWER switch, set it to CAMERA. The camcorder is set to Standby mode.

(3) Press START/STOP.

The camcorder starts recording. "REC" appears on the LCD screen or in the

The same order starts recording, "REC" appears on the LCD screen or in the viewfinder. The camera recording lamp on the front of the camerada also lights up.



To stop recording momentarily [a] Press START/STOP. The "STBY" indicator appear (Standby mode). appears on the LCD screen or in the viewfinder

To finish recording [b]
Set the POWER switch to OFF. Then, eject the cassette and remove the battery pack.









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ra recording

Attaching the lens hood

When the supplied wide conversion lens is not attached to the camcorder, we recommend you to attach the lens hood to record fine pictures, no matter where you shoot. You can also attach the lens cap when using the lens hood.

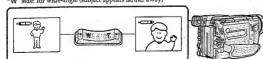


If the lens hood is not attached properly The four corners of the screen may be eclip

If an optional lens or filter is attached
When an optional lens or filter is attached to the camcorder, you cannot attach the lens hood.
Detach the optional lens or filter before attaching the lens hood.

Using the zoom feature

Zooming is a recording technique that lets you change the size of the subject in the scene. For more professional-looking recordings, use the zoom function sparingly. "T" side: for telephoto (subject appears closer) "W" side: for wide-angle (subject appears farther away)



Zooming speed (Variable speed zooming)
Press the power zoom lever a little for a relatively slow zoo

om; press it still more for a high Press the power zoom speed zoom.

When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, press the "W" side of the
power zoom lever until the focus is sharp. You can shoot a subject that is at least about
about 80 cm (25 /6 feet) away from the lens surface in the telephoto position, or about
1 cm (about 1/2 inch) away in the wide-angle position.

To focus the viewfinder lens

10 TOCUS THE VIEWTINGET IERS

If you cannot see the indicators in the viewfinder clearly, or after someone else has used the camcorder, focus the viewfinder lens. Move the viewfinder lens adjustment lever so that the indicators in the viewfinder come into sharp focus.



Note on Standby mode

Note on Standay induct If you leave the canocrder in Standby mode for 5 minutes while the cassette is inserted, the camcorder turns off automatically. This prevents wearing down the battery and wearing out the tape. To resume Standby mode, while pressing the small green button on the POWER switch, set it to OFF once, and then to CAMERA. To start recording, press START/STOP.

Note on the progressive mode

If you modify the images on your personal computer or play the images back as still pictures, we recommend you to set PROG. SCAN to ON in the ment system before shooting. The picture quality may improve in this mode, but if you shoot a moving subject, the image may shake when it is played back.

Note on the lock knob

When you set the lock knob to the left position, the POWER switch will not be set to MEMORY accidentally.



Notes on the time code

- The time code indicates the recording or playback time, "0:00:00" (hours: minutes: seconds) in CAMERA mode and "0:00:00:00" (hours: minutes: seconds: frames) in VTR
- Be sure not to make a blank portion when recording, because the time code will start from *You can select the drop frame or non-drop frame system using the menu. (DSR-PD100
- only)
- only)

 *You can reset the time code to "0:00:00" in the CAMERA mode or to "0:00:00:00" in the VTR mode. Press the TC RESET button in the Recording or Recording pause mode.

Note on the tape recorded in the DV format

Note on the tape recorded in the DV format. If you record in the DVA format of the upper that has been recorded in the DV format, the playback picture and sound may be distorted between the two formats.

Note on the beep sound

Note that the beep sound is not recorded on the tape. If you do not want to hear the beep sound, select OFF in the menu system.

Note on remaining tape indicator The indicator may not be displayed accurately depending on the tape. Though the indicator does not appear at the time of recording, it will appear in a few seconds.

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Camera recording

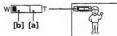
Zooming of more than 12x - digital zoom

- Levening of more than 12X digital 200m

 If you set the D ZOOM function to ON in the menu system, you can perform zooming of more than 12x performed digitally. It is set to OFF at the factory.

 You cannot use the digital zoom when you set PROG. SCAN to ON in the menu system.

 The right side [a] of the power zoom indicator shows the digital zooming zone, and the left side [b] shows the optical zooming zone. If you set the D ZOOM function to ON, the [a] zone appear. zone appears.



Shooting with the LCD screen

You can also record the picture while looking at the LCD screen.

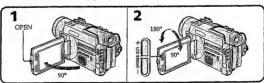
When using the LCD screen, the viewfinder turns off automatically except in mirror mode. You cannot monitor the sound from the speaker during recording.

(1) While pressing OPEN, open the LCD panel.

(2) Adjust angle of the LCD panel.

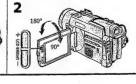
The LCD panel moves about 90 degrees to this side and about 180 degrees to the

To adjust the brightness of the LCD screen, press LCD BRIGHT + or –.
The battery life is longer when the LCD panel is closed. Use the viewfinder instead of the LCD screen to save the battery power.



Backlighting the LCD screen
If the LCD screen is insufficiently illuminated even after adjusting LCD BRIGHT, select LCD
B. L. in the ment system and set to BRIGHT. You can select LCD B. L. only while using the battery pack as a power source.

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Camera recording

- Notes on the LCD panel

 When closing the LCD panel, turn it vertically until it clicks [a].

 When turning the LCD panel, turn it always vertically; otherwise, the camcorder body may be damaged or the LCD panel may not close properly [b].

 Close the LCD panel completely when not in use.

 Do not push nor touch the LCD panel while operating the camcorder.

 You may find it difficult to view the LCD screen due to glare when using the camcorder outdoors.

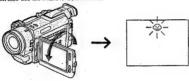




Letting the subject monitor the shot

You can turn the LCD panel over so that it faces the other way and you can let the subject monitor the shot while shooting with the viewfinder.

Turn the LCD panel up vertically. When you turn the LCD panel 180 degrees, the indicator appears on the LCD screen (mirror mode) and the time code and remaining tape indicators disappear. You can also use the Remote Commander.



To cancel mirror mode
Turn the LCD panel down toward the camcorder body.

Camera recording

- Notes on mirror mode

 When you turn the LCD panel about 135 degrees to 180 degrees, the camcorder enters
- mirror mode.

 Using the mirror mode, you can record yourself while watching yourself on the LCD
- order.

 The picture on the LCD screen looks like a mirror-image while recording in mirror mode. The STBY indicator appears as II● and REC as ●. Other indicators appear as mirror-image. Some indicators may not appear in mirror mode.

 While recording in mirror mode, you cannot operate the following functions: MENU,
- TITLE



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Camera recording

Self-timer recording

You can make a recording with the self-timer. This mode is useful when you want to record

yourself.

(1) Press () (self-timer) to display () (self-timer) on the LCD screen or in the viewfinder while the camcorder is in Standby mode.

(2) Press START/STOP.

Self-timer starts counting down to 10 with a beep sound. In the last two seconds of the countdown, the beep sound gets faster, then recording starts automatically at the time you set.



To stop self-timer recording Press START/STOP. Use the Remote Commander for convenience.

To record still pictures using the self-timer Press PHOTO in step 2.

To cancel self-timer recording Press $\mathfrak O$ so that the $\mathfrak O$ indicator disappears from the LCD or viewfinder screen while the camcorder is in Standby mode.

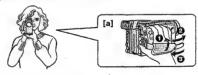
Self-timer recording mode is canceled when • Self-timer recording is finished. • The POWER switch is set to OFF or VTR.

Note
The display may become darker right after pressing the O button. This is not a malfunction.

Hints for better shooting

For hand-held shots, you will get better results by holding the camcorder according to the following suggestions:

• Hold the camcorder firmly and secure it with the grip strap so that you can easily manipulate the controls with your thumb. [a]



- Place your elbows against your side.
 Place your left hand under the camcorder to support it.
 Place your eye against the viewfinder eyecup.
 Be sure not to touch the bull-in microphone.
 Use the LCD panel frame or the viewfinder frame as a guide to determine the horizontal

- You can also record in a low position to get an interesting angle. Lift the viewfinder up for record from a low position. [b]
 You can also record in a low position or even in a high position using the LCD panel. [c]
 You can also record in a low position or even in a high position using the LCD panel. [c]
 When you use the LCD screen outdoors in direct sunlight, the LCD screen may be difficult to see. If this happens, we recommend that you use the viewfinder.







Hints for better shooting

Place the camcorder on a flat surface or use a tripod

Frace in Carifordies of a flat assume to use a support of the camcorder. Try placing the camcorder on a table top or any other flat surface of suitable height. If you have a tripod for a still camera, you can also use it with the camcorder. When attaching a non-Sony tripod, make sure that the length of the tripod screw is less than 6.5 mm (9/32 inch.). Otherwise, you cannot attach the tripod scretely and the screw may damage the

Cautions on the LCD panel and on the viewfinder

• Do not pick up the camcorder by the viewfinder or the LCD panel. [d]

• Do not place the camcorder so as to point the viewfinder or the LCD panel toward the sun. The inside of the viewfinder or the LCD panel may be damaged. Be careful when placing the camcorder under sunlight or by a window. [e]



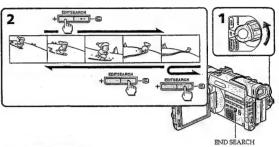


Checking the recorded picture

Using the EDITSEARCH, you can review the last recorded scene or check the recorded picture on the LCD screen or in the viewfinder.

(1) While pressing the small green button on the POWER switch, set it to CAMERA.

(2) Press the −⊕ side of EDITSEARCH momentarily; the last few seconds of the recorded portion plays back (Rec Review). Hold down the − side of EDITSEARCH until the camcorder goes back to the scene you want. The last recorded portion is played back. To go forward, hold down the + side (Edit Search).



To stop playback Release EDITSEARCH.

To go back to the last recorded point (END SEARCH)
Press RND SEARCH. The last recorded point is played back for about 5 seconds and stops.
Note that when you use a tape without cassette memory, this function does not work once you eject the cassette after recording.

To begin re-recording

Press START/STOP. Re-recording begins from the point you released EDITSEARCH. Provided you do not eject the tape, the transition between the last scene you recorded and the next scene you record will be smooth.

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Playing back a tape

You can monitor the playback picture on the LCD screen or in the viewfunder.

(1) Insert the recorded tape with the window facing out.

(2) While pressing OPEN, open the LCD panel.

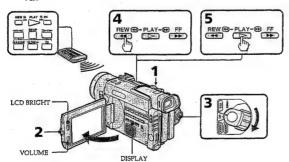
(3) While pressing the small green button on the POWER switch, set it to VTR.

(4) Press ← to travind the tape.

(5) Press ← to start playback.

Adjust the volume using VOLUME +/- and the brightness of the LCD screen using LCD BRIGHT +/-.

You can also monitor the picture on a TV screen, after connecting the camcorder to a TV or VCR.



To stop playback, press .

To rewind the tape, press ←.
To fast-forward the tape rapidly, press ➤➤.

Using the Remote Commander

You can control playback using the supplied Remote Commander. Before using the Remote Commander, insert the size AA (R6) batteries.

To display the LCD screen/viewfinder screen indicators

Press DISPLAY.
To erase the indicators, press again.

Notes on screen indicators

*The screen indicator disappears when the title is displayed.

*When you play back a tape using a "IndoLITHIUM" battery, a indicates the remaining battery capacity. The remaining battery capacity. The remaining battery time in minutes is not displayed.

Using headphones

Connect headphones (not supplied) to the Ω jack. You can adjust the volume of the headphones using VOLUME +/-.

Playing back a tape

To view the playback picture in the viewfinder Close the LCD panel. The viewfinder turns on automatically. When using the viewfinder, you can monitor the sound only by using headphones. To view on the LCD screen again, open the LCD panel. The viewfinder turns off automatically.

Note on DV-formatted tapes
You can play back DV-formatted tapes on this camcorder if the tape is recorded in SP mode.
"SP" appears on the LCD screen or in the viewfinder during playback.
You cannot play back DV-formatted tapes recorded in LP mode.

Various playback modes

To view a still picture (playback pause)
Press II during playback. To resume playback, press II or ▷

To locate a scene (picture search)
Keep pressing ◀◀ or ➤➤ during playback. To resume normal playback, release the button.

To monitor the high-speed picture while advancing the tape or rewinding (skip scan) New pressing ← while rewinding or ▶▶ while advancing the tape. To resume normal rewinding or fast-forward, release the button.

To view the picture at 1/3 speed (slow playback)

Press I► on the Remote Commander during playback. For slow playback in reverse direction, press <, then press I►. To resume normal playback, press ▷.

To view the picture at double speed

For double speed playback in the reverse direction, press <, then press ×2 on the Remote Commander during playback. For double speed playback in the forward direction, press >, then press ×2 during playback. To resume normal playback, press >>,

To view the picture frame-by-frame
Press ≪II or III → on the Remote Commander in playback pause mode. If you keep pressing the button, you can view the picture at 1/30 speed (DSR-PD100) or at 1/25 speed (DSR-PD100P). To resume normal playback, press ▷,

To change the playback direction

Press < on the Remote Commander for reverse direction or > on the Remote Commander for forward direction during playback. To resume normal playback, press ▷.

Notes on playback

Notes on playback

'The sound is muted in the various playback modes.

'During playback other than normal playback, the previous recording may appear in mosaic image. This is not malfunction.

'When playback pause mode lasts for 5 minutes, the camcorder automatically enters stop mode. To resume playback, press ...

Note on slow playback

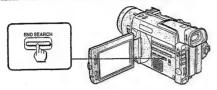
The slow playback can be performed smoothly on this camcorder; however, this function does not work for an output signal from the BDV IN/OUT jack.

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Searching for the end of the picture

You can go to the end of the recorded portion after you record and play back the tape. The tape starts rewinding or fast-forwarding and the last about 5 seconds of the recorded portion plays back. Then the tape stops at the end of the recorded picture (End Search).

Open the LCD panel and press END SEARCH during recording standby. This function works when the POWER switch is set to CAMERA or VTR.



- Notes on End Search

 When you use a tape without cassette memory, the End Search function does not work once you eject the cassette after recording.

 When you use a tape with cassette memory, the End Search function works once you eject the cassette. When you play back a tape which has a blank portion in the beginning or between the recorded portions, the End Search function will not work correctly.

Advanced operations

Using alternative power sources

You can choose any of the following power sources for your camcorder: battery pack, and house current (mains). Choose the appropriate power source depending on where you wa to use your camcorder.

Place	Power source	Accessory to be used
Indoors	House current (Mains)	Supplied AC power adaptor
Outdoors	Battery pack	Battery pack NP-F330 (supplied), NP-F530, NP-F550, NP-F730, NP-F730, NP-F730, NP-F950

* NP-F730H is sold only in the U.S.A.

Note on power sources

Note on power sources

Disconnecting the power source or removing the battery pack during recording or playback may damage the inserted tape. If this happens, restore the power supply again immediately.

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Using alternative power sources

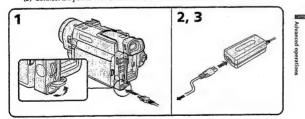
Using the house current (mains)

- To use the supplied AC power adaptor:

 (1) Open the DC IN jack cover, and connect the AC power adaptor to the DC IN jack on the camcorder.

 (2) Connect the power cord (mains lead) to the AC power adaptor.

 (3) Connect the power cord (mains lead) to a wall outlet (mains).



WARNING

The power cord (mains lead) must be changed only at a qualified service shop.

PRECAUTION

PRECAUTION
The set is not disconnected from the AC power source (house current/mains) as long as it is connected to the power cord (mains lead), even if the set itself has been turned off.

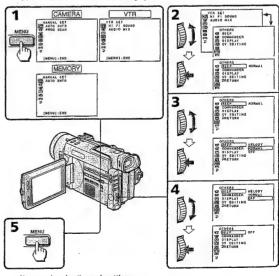
Note Keep the AC power adaptor away from the camcorder if the picture is disturbed.

Changing the mode settings

You can change some of the mode settings programed at the factory to further enjoy the features and functions of the camcorder. Just turn the control dial to select the menu items displayed on the LCD screen. You can make selections in the following order: the menu display—isons—items—mode settings:

(1) Press MENU to display the menu.

- (2) Turn the control dial to select the desired icon on the left side of the menu, then
- (2) Turn the control dial to select the desired item, then press the dial.
 (3) Turn the control dial to select the desired item, then press the dial.
 (4) Turn the control dial to select the desired mode, then press the dial. If you want to change the other modes, repeat steps 3 and 4. If you want to change the other items, select ⇒ RETURN and press the dial, then repeat steps 2 to 4.
 (5) Press MENU to erase the menu display.



- Notes on changing the mode settings
 Menu items differ depending on the setting of the POWER switch to VTR, CAMERA or
 - ording in mirror mode, you cannot operate the menu system.

Changing the mode settings

Selecting the mode setting of each Item

Menu items that can be modified differ depending on the setting of the POWER switch. The LCD screen shows only the items that you can operate at the moment. The menu items are categorized into nine groups signified by the nine icons described below.

Items for the MMANUAL SET menu

- AUTO SHTR <ON/OFF>
 Select ON and the electronic shutter functions automatically when shooting in bright
- conditions.

 Select OFF and the electronic shutter does not function even in bright conditi

PROG. SCAN* <OFF/ON>

- PROG. SCAN* «OFF/ON»
 Select OFF not to record still/moving pictures with all the pixels.
 Select ON to record still/moving pictures with all the pixels.

Items for the @ CAMERA SET menu

- D 200M <0FF/ON
 Select OFF not to use the digital zoom. The camcorder goes back to 12x optical zoom.
 Select ON to activate digital zooming.

16:9WIDE <OFF/ON>

Select this item to record a 16:9 wide picture. See page 39 for details.

STEADYSHOT <ON/OFF>

- Normally select ON.
 Select OFF when you do not have to worry about camera-shake.

AE SHIFT Adjust the setting level of AE (Automatic Exposure). See page 52 for details.

GAIN SHIFT <0dB/-3dB

- Set the gain value to 0dB.
 Set the gain value to -3dB

FRAME REC <OFF/ON>

Normally select OFF.
Select ON for cut recording.
When you remove the power source, the setting becomes OFF.

- INT.REC <ON/OFF/SET> <WAIT TIME/REC TIME>

 Normally select OFF. Select ON to make an interval recording.

 Select WAIT TIME it is set or change the waiting time for interval recording.

 Select REC TIME to set or change the recording time for interval recording.

 When you remove the power source, the setting becomes OFF, but the waiting time and recording time are retained.

Items for the W VTR SET menu

- HIFI SOUND'S-STEREO/172>
 Select STEREO; to play back stereo sound or main and sub sound (for dual sound).
 Select 1 to play back the left sound (for stereo sound) or main sound (for dual sound).
 Select 2 to play back the right sound (for stereo sound) or sub sound (for dual sound).

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Changing the mode settings

Select this item to duplicate still pictures. See page 98 for details.

Items for the CM CM SET menu
CM SEARCH Artificity of the United Search Unite

TITLEERASE
Erase the title you have superimposed.

- TITLE DSPL <ON/OFF>
 Select ON to display the title you have superimposed.
 Select OFF not to display the title.

TAPE TITLE Select this item to label the cassette tape.

ERASE ALL Select this item to erase all the data in cassette memory.

Items for the 🖾 TAPE SET menu

- AUDIO MODE <F532K/F548K>
 Normally select F532K to record two stereo sounds.
 Select F548K to record the one stereo sound with high quality.

MIC LEVEL* <AUTO/MANUAL>
• Select AUTO to adjust the recording level automatically
• Select MANUAL to adjust the recording level manually

DEREMAIN <AUTO/ON>

- EMREMAIN <AUTO/ON>
 Select AUTO to display the remaining time of the tape in the following cases:

 With the power on or a tape inside, for eight seconds after the remaining time of the tape becomes certain.

 For eight seconds after the ID→ or DISPLAY button is pressed.

 During rewinding, fast-forwarding, and searching the picture.

 Select ON to always display the remaining time of the tape.

- DATA CODE <DATE/CAM or DATE>

 Select DATE/CAM to display date and recording data during playback.

 Select DATE to display date during playback.

TIME CODE <DF/NDF> (DSR-PD100 only)
• Select DF to record in the drop frame system.
• Select NDF to record in the non-drop frame system.

Items for the 📾 SETUP menu

Select this item to reset the date or time

LTR SIZE <NORMAL/2X>

Normally select NORMAL.
 Select 2X to display the selected menu item by twice size of the normal.

Changing the mode settings

Select this item to adjust the balance between the stereo 1 and stereo 2 by turning the control dial.

- NIDGER CON PAL IV/NIDC 4.43> (DSR-PD100P only)

 Normally select ON PAL TV.
 Select NTSC 4.43 when playing back a tape recorded in the NTSC color system. When you play back on a Multi System TV, select the best mode while watching the picture on the TV.

Items for the 🖾 LCD/VF SET menu

- LCD B.L. <BRT NORMAL/BRIGHT>
 Normally select BRT NORMAL
 Select BRGIT when the LCD screen is dark. The battery consumption increases by 10 to

Even if you adjust the LCD B.L., the recorded picture is not affected.

LCD COLOR (LCD COLOUR) Select this item and change the level of the indicator by turning the control dial up (+) or down (-) to adjust the color intensity of the picture.

VF BRIGHT
Close the LCD panel.
Select this item to adjust the brightness of the viewfinder. The viewfinder becomes brighter when you turn the control dial up (+), and darker when you turn it down (-).

Items for the MEMORY SET menu CONTINUOUS <OFF/ON/MULTI SCRN>

- Select OFF not to record continuously.
 Select ON to record 2 to 4 pictures continuously.
 Select MULTI SCRN to record nine pictures continuously.

- QUALITY <STANDARD/FINE/SUPER FINE>
 Select STANDARD to record still pictures in the standard image quality mode, using the
- memory card slot.
 Select FINE to record still pictures in the fine image quality mode, using the memory card
- slot. Select SUPER FINE to record still pictures in the superfine image quality mode, using the memory card slot.

- PROTECT <OFF/ON>
 Normally select OFF not to protect still pictures.
 Select ON to protect selected still pictures against accidental erasure. See page 106 for details.

SLIDE SHOW Select this item to play back images in a continuous loop. See page 112 for details.

DELETE ALL Select this item to delete all the images. See page 108 for details.

FORMAT
Select this item to format memory sticks or PC cards. See page 94 for details.

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Changing the mode settings

Items for the @ OTHERS menu

Select this item to set the clock by a time difference. See page 119 for details.

BEEP <MELODY/NORMAL/OFF>

- ONOTIMALY INVESTMENT OF STATE AND ADD TO A STATE OF THE ADD TO A STATE OF THE ADD TO A

COMMANDER* < ON/OFF>

- Solect ON when using the supplied Remote Commander for the camcorder.
 Select OFF when not using the Remote Commander.
- DISPLAY < LCD or V-OUT/LCD >

Normally select LCD.
 Select V-OUT/LCD to display indicators both on the LCD screen and TV screen.

REC LAMP < ON/OFF:

- Normally select ON.
 Select OFF when you do not want the camera recording lamp on the front of the unit to

COLOR BAR (COLOUR BAR) <OFF/ON>

- Normally select OFF not to display the color bar.
 Select ON to display the color bar.

DV EDITING

Select this item when editing a tape on another equipment connected with the iLINK cable (DV connecting cable). See page 82 for details.

• These settings return to the default 5 minutes or more after the power source is disconnected or battery is removed. As far as the other items without an asterisk are concerned, their settings are retained even when the power source is disconnected or battery is removed, as long as the vanadium-lithium battery is charged.

When recording a close subject
When REC LAMP is set to ON, the red camera recording lamp on the front of the camcorder
may reflect on the subject if it is close. In this case, we recommend you set REC LAMP to
OFF.

Notes

Notes

When playing back a tape recorded in the FS48K (16-bit) mode, you cannot adjust the
balance in AUDIO MIX.

If you select FS48K in AUDIO MODE, you cannot add an audio sound.

If you select FS48K in AUDIO MODE, the battery life while recording decreases 10 to 20%.

When you use a power source other than the battery, the menu item LCD B.L. is set to
BRIGHT automatically and the item does not appear on the screen.

Photo recording

You can record a still picture like a photograph for about seven seconds. This photo Tout can record a sun practice are a processory to social sea-econdar has proved recording is useful when you want to enjoy a picture such as a photograph or when you print a picture using a video printer (not supplied). You can record about 340 pictures on a 40-minute tape.

Ad-minute tape.

Besides the operation described here, this camcorder can record a still picture on a memory stick or PC card (not supplied), using the memory card slot (see page 100).

You can also record still/moving pictures on a mini DVCAM tape with all the pixels in the progressive mode. See page 35 for details.

(1) While pressing the small green button on the POWER switch, set it to CAMERA.

(2) Keep pressing PHOTO lightly until a still picture and "CAPTURE" appears on the LCD screen or in the viewfinder.

Recording does not start yet. To change the still picture, release PHOTO, select still picture again, and keep pressing PHOTO lightly again.

If you press PHOTO on the Remote Commander when a still picture appears on the LCD screen or in the viewfinder, the camcorder will record that still picture. However, you cannot select other still picture by using this button.

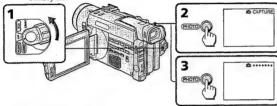
However, you cannot select other still pictures by using this button

However, you cannot select other still pictures by using this button.

(3) Press PHOTO deeper.

The still picture on the LCD screen or in the viewfinder is recorded for about seven seconds. The sound during those seven seconds is also recorded.

To record a still picture while normal recording, press PHOTO deeper. Then the still picture is recorded for about seven seconds and the camcorder returns to



When shooting in the dark
Install the HYL-FDH2 video flash light (not supplied) to the accessory shoe. If the exposure is in manual exposure mode, set it to automatic exposure mode.
When 4 appears nex to the "CAPTURE" indicator on the LCD screen or in the viewfinder, the video flash is ready to be used.

Note on the still nicture

When the still picture recorded on this camcorder is played back on another VCR, the picture may be blurred. This is not a malfunction.

When you press PHOTO while recording a photo
The picture on the LCD screen or in the viewfinder whenever you press PHOTO will be
recorded. You cannot check the recorded picture by pressing PHOTO lightly.
After the moving picture is recorded as a still picture for about seven seconds, the camcorder
will go back to Standby mode.

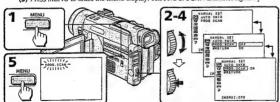
33

Shooting with all the pixels – PROG. SCAN

When modifying the digital images on your personal computer, set PROG. SCAN to ON before shooting. You can record the images on a mini DVCAM tape frame by frame with higher resolution. Since the image taken in progressive mode does not go out of focus even in a pause, it is especially useful when you analyze high-speed actions such as sport scenes.



(1) Press MENU to display the menu in Standby mode.
(2) Turn the control dial to select , then press the dial.
(3) Turn the control dial to select PROG. SCAN, then press the dial.
(4) Turn the control dial to select ON, then press the dial.
(5) Press MENU to erase the menu display. The PROG. SCAN indicator lights up.



To return to normal mode

ess the control dial.

Note on the progressive mode
The normal TV broadcast divides the screen into two finer fields and displays them in turns
every 1/60 of a second (DSR-PD100) or 1/50 of a second (DSR-PD100P). Thus, the actual
image displayed in an instant covers only half of the apparent image area. Displaying the
whole image simultaneously on a full screen is called displaying with all the pixels. In this
mode, the resolution of the still picture is twice as high as in the normal mode. This
camcorder takes in an image every 1/30 of a second (DSR-PD100) or 1/25 of a second (DSRPD100P), which may cause the image of a moving object to go out of focus.

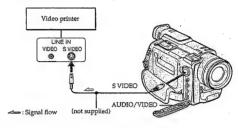
The setting at the factory
This cannorder is originally programed to record still/moving pictures on a mini DVCAM tape in the normal TV format (Interface format).

When shooting under fluorescent light
When shooting in the progressive mode under fluorescent light or light bulb, a rare
phenomenon may happen in which the screen lights up brightly (Flicker phenomenon
is not a malfunction. If you want to stop this phenomenon, set PROG. SCAN to OFF in

Photo recording

Printing the still picture

You can print a still picture by using the video printer (not supplied). Connect the video printer using the S video connecting cable (not supplied). Refer to the operating instruction of the video printer as well.

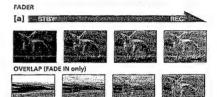


If the video printer is not equipped with \$ VIDEO input
Use the supplied A/V connecting cable. Connect it to the AUDIO/VIDEO jack and connect
the yellow plug of the cable to the VIDEO input of the video printer.

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Using the FADER function

You can fade in or out to give your recording a professional appearance. When fading in, the picture gradually fades in while the sound increases. When fading out, the picture gradually fades out while the sound decreases.



[b] SISS

MONOTONE

When fading in, the picture gradually changes from black and white to color.

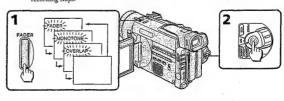
When fading out, the picture gradually changes from color to black and white.

When fading in [a]

(1) While the camcorder is in Standby mode, press FADER until the desired indicator flashes.

(2) Press START/STOP to start recording. The fade indicator stops flashing.

When fading out [b]
(1) During recording, press FADER until the desired indicator flashes. (2) Press START/STOP to stop recording. The fade indicator stops flashing, and then



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Using the FADER function

To cancel the fader function
Before pressing START/STOP, press FADER until the fade indicator disappears.

You cannot use the fader function in the following situations

-The canncorder is in the photo recording.

-A title is displayed on the LCD screen or in the viewfinder. If the title is not necessary, erase it before using the fader function.

During fading, you cannot operate the DIGITAL EFFECT button.

- The fader function is effective in the following situations
 A big change of scene (FADE IN, FADE OUT)
 The beginning of a story (FADE IN)
 The end of a day (FADE OUT)
 Change the scene while leaving the trace of the previous scene

If you use the fader function repeatedly

The situation the subject is in cannot be seen clearly, thus making the picture difficult to enjoy.

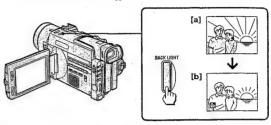
When the OVERLAP indicator appears

The camcorder automatically memorizes the image recorded on a tape. As the image is being memorized, the OVERLAP indicator flashes fast, and the playback picture is displayed. At this stage, the picture may not be recorded clearly, depending on the tape condition.

Shooting with backlighting

When you shoot a subject with the light source behind the subject or a subject with a light background, use the BACK LIGHT function.

Press BACK LIGHT. The Mindicator appears on the LCD screen or in the viewfinder.



[a] Subject is too dark because of backlight. [b]Subject becomes bright with backlight compensation.

After shooting

Be sure to release this adjustment condition by pressing BACK LIGHT again. The Maindicator disappears. Otherwise, the picture will be too bright under normal lighting

This function is also effective under the following conditions:

• A subject with a light source nearby or a mirror reflecting light.

• A white subject against a white background. Especially when you shoot a person wearing shiny clothes made of silk or synthetic fiber, his or her face tends to become dark if you do not use this function.

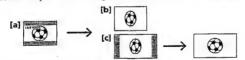
Note on the BACK LIGHT function
When you press EXPOSURE or SHUTTER SPEED, the BACK LIGHT function is canceled.

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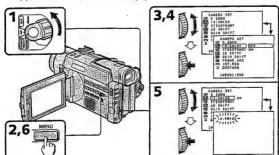
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Using the wide mode function

You can record a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9WIDE). The picture with black bands at the top and the bottom on the LCD screen or in the viewfinder fal is normal. The picture on a normal TV [b] is horizontally compressed can watch the picture of normal images on a wide-screen TV [c]. ntally compressed. You



- (1) Set the POWER switch to CAMERA.
 (2) Press MENU to display the menu.
 (3) Turn the control dial to select [5], then press the dial.
 (4) Turn the control dial to select 169WIDE, then press the dial.
 (5) Turn the control dial to select ON, then press the dial.
- (6) Press MENU to erase the menu display



To cancel wide mode OFF in step 5, then press the control dial.

To watch the tape recorded in wide mode

To watch the tape recorded in 16:9WIDE mode, set it to full mode. For details, refer to the operating instruction of your TV.

Note that the picture recorded in 16:9WIDE mode looks compressed on a normal TV.

- Notes on wide mode

 •In wide mode, you cannot select the old movie function with DIGITAL EFFECT.

 •You cannot select or cancel the wide mode during recording.

 •You cannot use the wide mode function when you set PROG. SCAN to ON.

Enjoying picture effect

Selecting picture effect

You can make pictures like those of television with the Picture Effect function.



NEG. ART [a]

The color of the picture is reversed.

SEPIA

The picture is sepia. R&W

The picture is monochrome (black and white).

SOLARIZE [b] The light intensity is clearer, and the picture looks like an illustration.

SLIM [c] The picture expands vertically.

STRETCH [d]

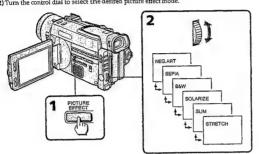
The picture expands horizontally

Enjoying picture effect

Using picture effect function

(1) While in Standby mode, press PICTURE EFFECT.

(2) Turn the control dial to select the desired picture effect mode.



To return to normal mode
Press PICTURE EFFECT so that the indicator disappears.

- Notes on the picture effect

 When you turn the power off, the camcorder returns automatically to normal mode.

 You cannot select SLIM and STRETCH when you set PROG. SCAN to ON.

 While using the picture effect function, you cannot select the old movie function with DIGITAL EFFECT.

Recording with various effects - digital effect

With the following functions of Digital Effect, you can add various visual effects to the picture. The sound is recorded normally.

STILL
You can record a still picture to be superimposed on a moving picture.



FLASH LUMI

You can record still pictures successively at constant intervals.

on can replace a brighter portion of a still picture with a moving picture.

TRAIL
You can record the picture which leaves an incidental image, such as a trail.

OLD MOVIE You can record the picture such as an old movie. The camcorder automatically sets the wide mode to 16:9WIDE, picture effect to SEPIA, and the appropriate shutter speed.

- (1) While in Standby mode or Recording mode, press DIGITAL EFFECT. The digital effect indicator flashes.

 (2) Turn the control dial to select the desired digital effect mode.

 (3) Fress the control dial. The digital effect indicator lights up and the bars appear. The bar does not appear in the OLD MOVIE mode. The still picture is stored in memory in the STILL or LUMI. mode.

 (4) Turn the control dial to adjust effects.

 The longer the bar is, the greater the effects are.

 STILL: The proportion of still picture to moving picture.

 FLASH: The length of the intervals.

 LUMI.: The brightness of the area where you paste the moving picture.

 TRAIL: The length of time the incidental image remains.

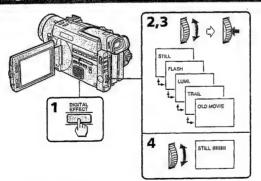
TRAIL: The length of time the incidental image remains.

OLD MOVIE: No adjustment necessary.

41

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Recording with various effects – digital effect



To cancel digital effects
Press DIGITAL EFFECT so that the indicator disappears.

- Notes on digital effect

 You cannot use the following functions while using the digital effect.

 Functions using the FADER button

 Functions using the PATOTO button

 When you set the POWER switch to OFF, the digital effect will be canceled automatically.

- You cannot use the following functions in the OLD MOVIE mode.

 Functions using the PROGRAM AE button

 16-9WIDE mode.

- nctions using the PICTURE EFFECT button

Shooting with manual adjustment

Under normal conditions, this unit automatically makes various adjustments as it shoots. However, you can adjust manually the following functions to your preference.

Functions you can adjust by setting the AUTO LOCK selector to the center (auto lock release) position
Brightness (exposure), shutter speed, white balance, and program AE

Functions you can adjust by setting MENU Recording level, deactivating the Steady Shot, gain shift, and AE shift

Functions you can adjust by using other buttons/switches ND filter, focus, zebra pattern

The following describes how to adjust all the functions mentioned above except program AE (see page 54) and focus (see page 57).

AUTO LOCK selector
Set the selector as shown below to maintain or release the settings of the functions.



AUTO LOCK [a] Select this position to let the unit adjusts all the functions automatically.

HOLD [b]
Select this position after setting the functions manually to maintain the settings.

Manual position [c] Select this position to adjust manually the functions listed above.

Adjusting exposure

Adjust the exposure manually under the following cases.



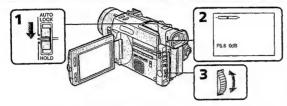


- [a]
 The background is too bright (back lighting)
 Insufficient light: most of the picture is dark

- [b]
 Bright subject and dark background
 To record the darkness faithfully
- (1) Set AUTO LOCK selector to the center (auto lock release) position while the camcorder is in Standby mode.

 (2) Press EXPOSURE. The exposure indicator appears on the LCD screen or in the
- viewfinder.
 (3) Turn the control dial to adjust the exposure.

Shooting with manual adju



To return to automatic exposure mode
Set AUTO LOCK selector to AUTO LOCK or press EXPOSURE to turn off the expo

Notes

• The control dial does not have a stop position.

• If you press PROGRAM AE, the exposure comes back to automatic adjustment again.

• When you adjust the exposure manually, you cannot use the BACK LIGHT function.

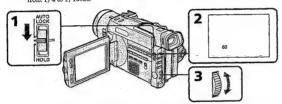
Adjusting the shutter speed.

(1) Set AUTO LOCK selector to the center (auto lock release) position while the

camcorder is in Standby mode.
(2) Press SHUTTER SPEED. The shutter speed indicator appears on the LCD screen or

(2) Press 5101 183 BED. The shifted speed initiation appears of the viewfinder.

(3) Turn the control dial to select the desired speed. The available shutter speed ranges from 1/4 to 1/10000.



To return to automatic shutter speed mode Set AUTO LOCK selector to AUTO LOCK or press SHUTTER speed indicator. ess SHUTTER SPEED to turn off the shutter

When shooting at slow shutter speed At slow shutter speed, automatic focus may be lost. Adjust focus manually using a tripod.

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Shooting with manual adjustment

If you have selected 🗻 in step 3

If you have selected & in step 3 When you set the white balance to one-push white balance mode, the setting is locked and maintained even if lighting conditions change. You can achieve recording with natural colors without being affected by ambient light. (With the & indicator on the screen)

(1) Shoot a white object such as paper fully on the LCD screen or in the viewfinder. (2) Press the control dial. The & indicator flashes quickly. When the white balance has been adjusted and stored in the memory, the indicator stops flashing. The setting will be maintained for about one hour after the battery is detached.

To return to automatic adjustments
Set AUTO LOCK selector to AUTO LOCK or press WHT BAL to turn off the white balance

Notes on the & Indicator on the screen

• The state of the indicator shows as follows:
Slow flashing: white balance is not adjusted.
Fast flashing: white balance is being adjusted.
Lights up: white balance has been adjusted.
• When the & Indicator remains flashing even if you press the control dial, shoot in automatic white balance mode.

Notes on white balance

• When you shoot with studio lighting or video lighting, use the

(indoor) mode.

• When you shoot with fluorescent lighting, use automatic white balance mode. If you use

the

(indoor) mode, white balance may not be adjusted appropriately.

Shooting when lighting conditions change

• When lighting conditions have changed, readjust the white balance with the control dial while the camcorder is in Standby mode.

• When you adjust the exposure and shutter speed manually, and move from indoors to outdoors, or vice versa, adjust the white balance again.

• When you move from indoors to outdoors, or vice versa, or detach the battery for replacement while shooting in automatic white balance mode or set the POWER switch to CAMERA, point the camcorder at a white subject for about 10 seconds before you start recording.

Shooting with manual adjustment

Adjusting the white balance

White balance adjustment makes white subjects look white and allows more natural color balance for camera recording. Normally white balance is automatically adjusted. You can obtain better results by adjusting the white balance manually when lighting conditions change quickly or when recording outdoors: e.g., neon sign, fireworks.

(1) Set AUTO LOCK selector to the center (auto lock release) position while the

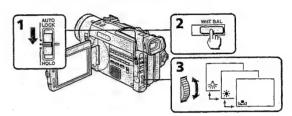
camcorder is in Standby mode.

(2) Press WHT BAL. The white balance indicator appears on the LCD screen or in the

viewinder.

(3) Turn the control dial to select the appropriate white balance mode under the following conditions. As you turn the dial, the display changes as follows:

Δω (One-push white balance) ←→ ★ (Outdoor) ←→ ♣ (Indoor).



Shooting conditions Display • Adjusting the white balance according to the light source This operation is not available during recording. Follow the steps described on the next page to adjust the settings again. Recording a sunset/sunrise, just after sunset, just before sunrise, neon signs, or fireworks
 Under a color matching fluorescent lamp ₩ (Outdoor) Lighting condition changes quickly
Too bright place such as photography studios
Under sodium lamps or mercury lamps : (Indoor)

Shooting with manual adjustment

Adjusting recording level You can adjust the recording sound level. Use headphones to monitor the sound when you

You can adjust the recording sound level. Use headphones to monitor the sound when you adjust.

(1) Set the POWER switch to CAMERA.

(2) Press MENU to display the menu.

(3) Turn the control dial to select ED, then press the dial.

(4) Turn the control dial to select MIC LEVEL, then press the dial.

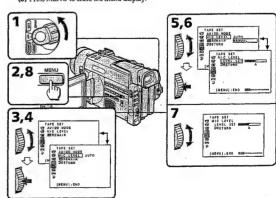
(5) Turn the control dial to select MADUAL, then press the dial.

(6) Turn the control dial to select MADUAL, then press the dial.

(7) Turn the control dial to select LEVEL SET, then press the dial.

(7) Turn the control dial to adjust the microphone level, so that the peak indicator in the lower-right corner does not light up. It is recommended to use headphones (not supplied) to monitor the sound when making the adjustment.

(3) Press MENU to erase the menu display.



To adjust the microphone level automatically Select AUTO in step 5, then press the control dial.

Notes on the adjustment

Notes on the adjustment

The sound level setting is retained as long as the power is on and for about five minutes after removing the battery.

Sound level indicator appears at the lower right on the LCD screen or in the viewfinder.

The sound input through the AUDIO/VIDEO jack You cannot adjust the recording level of the sound.

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1-11

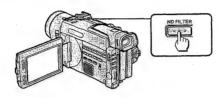
Shooting with manual adjustment

Using the ND filter

Using the ND filter (corresponds to 16% of the quantity of light), you can record a picture clearly, preventing the picture from going out of focus under bright conditions.

When ND ON flashes on the LCD screen or in the viewfinder The ND filter is necessary. Press ND FILTER so that the ND ON indicator appears. The ND filter is now activated.

When ND OFF flashes on the LCD screen or in the viewfinder The ND filter is not necessary. Press ND FILTER so that the ND OFF indicator stops flashing. The ND filter is now deactivated.

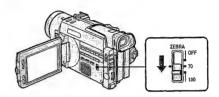


ooting with manual adjustment

Shooting with the zebra pattern

You can set the camcorder to display a zebra pattern (diagonal stripes) in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness exceeds a certain level. The portion of the picture where zebra pattern appears is an area of high brightness and overexposure. You can check the picture level of a subject by displaying the zebra pattern. Use the zebra pattern as a guide for adjusting the exposure and shutter speed so that you can get the desired picture.

Set the ZEBRA selector to 70 or 100.



To erase the zebra pattern Set the ZEBRA selector to OFF.

Settings of the ZEBRA selector

Setting	Meaning .
70	The zebra pattern appears in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness is about 70 IRE (70%).
100	The zebra pattern appears in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness exceeds more than 100 IRE (100%).
OFF	The zebra pattern does not appear on the LCD screen or in the viewfinder.

Note on shooting with the zebra pattern

Even though you see the zebra pattern on the LCD screen or in the viewfinder, the zebra
pattern is not recorded.

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Shooting with manual adjustment:

Releasing the Steady Shot function

When the Steady Shot function is working, the camcorder compensates for camera-shake.

You can release the Steady Shot function when you do not need to use it. The indicator appears on the LCD screen or in the viewfinder. Do not use the Steady Shot function when shooting a stationary object with a tripod.

(1) Set the POWER Switch to CAMERA.

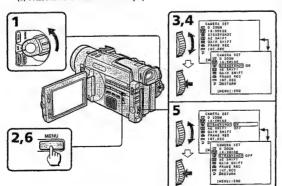
(2) Press MENU to display the menu.

(3) Turn the control dial to select STEADYSHOT, then press the dial.

(4) Turn the control dial to select STEADYSHOT, then press the dial.

(5) Turn the Control dial to select STEADYSHOT, then press the dial.

(6) Press MENU to erase the menu display



To activate the Steady Shot function again Select ON in step 5, then press the control dial.

Notes on the Steady Shot function

The Steady Shot function will not correct excessive camera-shake.

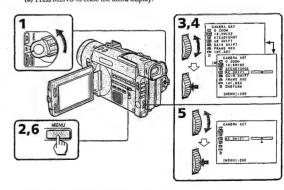
If you use a tele conversion lens or a wide conversion lens, the Steady Shot function may not be fully effective.

Shooting with manual adjustment

Adjusting AE shift

- (1) Set the POWER switch to CAMERA.
 (2) Press MENU to display the menu.
 (3) Turn the control dial to select (6), then press the dial.
 (4) Turn the control dial to select AE SHIFT, then press the dial.
 (5) Turn the control dial to adjust brightness, then press the dial.
 Darker picture

 Brighter picture
 (6) Press MENU to erase the menu display.



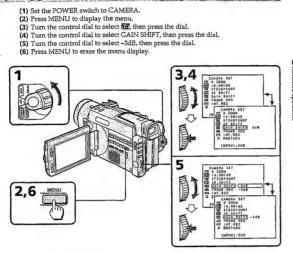
To deactivate AE shift

Set the bar indicator at the center in step 5, then press the control dial.

When you adjust AE shift
The 8-4 to 8-4 indicator is displayed on the LCD screen or in the viewfinder. The number varies corresponding to the AE shift level.

oting with manual adjustment

Adjusting gain shift



To deactivate gain shift Select 0dB in step 5, then press the control dial.

What is gain shift
When shooting in bright conditions, the gain shift function automatically adjusts the
automatic exposure control's gain value to -3dB as much as possible. This helps you shoot
pictures with less noises in a bright condition. In dark conditions, the unit operates as usual.

When you adjust gain shift
The B indicator is displayed on the LCD screen or in the viewfinder.

Using the PROGRAM AE function

You can select from five PROGRAM AE (Auto Exposure) modes to suit your shooting situation, referring to the following.

Selecting the best mode

Select a proper PROGRAM AE mode referring to the following description.











■ A: Aperture priority mode
 Selecting the aperture to determine the desired depth of field. Gain and the shutter speed are automatically set in combination with the aperture value to maintain appropriate exposure.

ሽ: Sports lesson mode Capturing high-speed action in sports such as golf or tennis

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2: Low lux mode
For recording a subject in insufficient light. Subject becomes bright.

Notes on focus setting

- Notes on rocus setting

 In the Sports lesson mode, you cannot take close-ups because the camcorder is set to focus only on subjects in the middle to far distance.

 In the Sunset & Moon mode, the camcorder is set to focus only on distant subjects.

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Using the PROGRAM AE function

Using the PROGRAM AE function

- (1) Set AUTO LOCK selector to the center (auto lock release) position while the camcorder is in Standby or Recording mode.

 (2) Press PROGRAM AE.
- (2) Press PROGRAM AE.
 Turn the control dial so that the symbol of the desired PROGRAM AE mode matches the indicator on the LCD screen or in the viewfunder. When you select the aperture priority mode or the shutter speed priority mode, press the control dial.
 In aperture priority mode (四 A) or shutter speed priority mode (面 S), turn the control dial to select the desired aperture value (F value) or shutter speed. Aperture priority mode:
- Aperture priority mode:

Aperture priority indee.

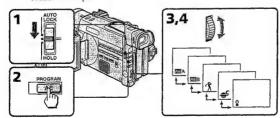
Turn the control dial to select the desired aperture value. As you turn the dial, the F value changes between F1.6 and F11.

For a smaller aperture, select a higher value. Gain and the shutter speed change in accordance with the selected aperture value.

Shutter speed priority mode:

Shutter speed priority mode: Turn the control dial to select the desired shutter speed. As you turn the dial, shutter speed changes between 1/60 and 1/10000 (DSR-PD100) or 1/50 and 1/10000 (DSR-PD100P). For a faster shutter speed, select a smaller value indicator on the LCD screen or in the viewfinder. The gain and aperture values change in accordance with the

selected shutter speed.



To return to automatic adjustment mode
Set AUTO LOCK selector to AUTO LOCK or press PROGRAM AE so that the indicator disappears.

When you focus in telephoto You cannot choose F1.6, F2 and F2.4.

Using the PROGRAM AE function

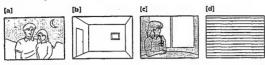
About the depth of field
The depth of field is the in-focus range, measured from the distance behind a subject to the
distance in fromt. The depth of field can vary with the iris (F value) and the focal length.
Lowering the F value (large iris) reduces the depth of field. Raising the F value (small iris)
provides a large depth of field. Zooming in telephoto position offers a smaller depth of field
while the depth of field in wide-angle position is greater.

The depth of field	Shallow	Deep
Iris	Open (Low F value)	Close (High F value)
Zoom	Telephoto (T)	Wide (W)

Focusing manually

When to use manual focus

In the following cases you should obtain better results by adjusting the focus manually.



• Insufficient light [a]

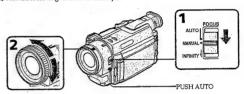
ontrast — walls, sky, et behind the subject [c] Subjects with little contrast — walls, sky, etc. [b]
Too much brightness behind the subject [c]
Horizontal stripes [d]
Subjects through frosted glass
Subjects beyond nets, etc.
Bright subject or subject reflecting light
Shooting a stationary subject when using a tripod

Adjusting focus manually

When focusing manually, first focus in telephoto before recording, and then reset the shot

length.
(1) Slide FOCUS down to MANUAL. The @ indicator appears on the LCD screen or in the

(2) Turn the focus ring to focus on the subject.



To focus in infinity
Slide FOCUS to INFINITY. ▲ indicator appears on the LCD screen or in the viewfinder.
This function is useful when the nearer subject is focused automatically, and you want to focus on a faraway subject.

To shoot with auto focusing momentarily
Press PUSH AUTO.
The auto focus functions while you are pressing PUSH AUTO.
Use this button to focus on one subject and then another with smooth focusing.
When you release PUSH AUTO, manual focusing resumes.

To return to the autofocus mode Slide FOCUS up to AUTO to turn off ® or 🍑 indicator.

To shoot in relatively dark places or to shoot the subject moving quickly outside Shoot at wide-angle after focusing in the telephoto position.

If & lights up Subject is too close.

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Interval recording

You can make a time-lapse recording by setting the camcorder to automatically record and standby sequentially. You can achieve an excellent recording for flowering, emergence, etc., with this function.

(1) Set the POWER switch to CAMERA.

(2) Press MENU to display the menu.

(3) Turn the control dial to select to the press the dial.

(4) Turn the control dial to select to the press the dial.

(5) Turn the control dial to select to the series the dial.

(6) Set WAIT TIME and REC TIME.

① Turn the control dial to select WAIT TIME, then press the dial.

② Turn the control dial to select WAIT TIME, then press the dial.

② Turn the control dial to select WAIT TIME, then press the dial.

③ Turn the control dial to select the desired waiting time, then press the dial.

The time: 305EC ←→ 1MIN → 5MIN ← 10MIN.

③ Turn the control dial to select ECT TIME, then press the dial.

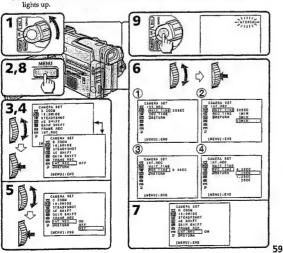
The time: 0.5EC ←→ 15EC → 1.5SEC → 2.5EC.

⑤ Turn the control dial to select PRITURN, then press the dial.

(7) Turn the control dial to select PRITURN, then press the dial.

(8) Press MENU to erase the menu display. The interval recording indicator flashes.

(9) Press START/STOP to start interval recording. The interval recording indicator lights up.



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Interval recording

To cancel the interval recording
• Set INT.REC to OFF in the menu system.
• Set the POWER switch to OFF, VTR or MEMORY.

To stop the interval recording momentarily and perform normal

recording
Press START/STOP. You can perform the normal recording only once. To cancel the normal
recording, press START/STOP again.

During the interval recording mode The INTERVAL indicator appears.

Notes on interval recording

•You cannot do interval recording with photo recording.

•You cannot perform interval recording in the MEMORY mode.

•There may be a discrepancy in recording time of up to +/- 6 frames from the selected time.

Connecting the external microphone with the XLR connector

- When using the ECM-670 external microphone (not supplied), attach the CAC-12 microphone holder and supplied XLR adaptor.

 (1) Attach the XLR adaptor to the accessory shoe on the camcorder and tighten the screw of the XLR adaptor.

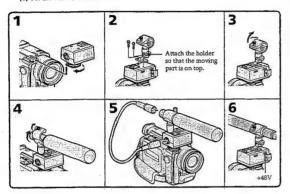
 (2) Attach the microphone holder with the supplied screws.

 (3) Loosen the microphone holder screw and open the cover.

 (4) Place the microphone into the holder, close the cover, and tighten the screw.

 (5) Connect the microphone to the MIC IN connector on the XLR adaptor, using a microphone cable (not supplied).

 (6) Set the +48V switch to ON.



- Notes

 When you use a wind screen other than the one supplied with ECM-670, make sure that the wind screen does not appear on the screen, using an underscan monitor.

 By setting the ATT switch to ON, you can reduce unnecessary noise by about 20 d.B.

 When detaching the microphone cable, do so while holding the TUST button down.

 When detaching the XLR adaptor, do so after having loosened the screw of the XLR

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Superimposing a title

If you use a tape with cassette memory, you can superimpose the titles while recording or after recording. When you play back the tape, the title is displayed for five seconds from the point where you superimposed it.
You can select from eight preset titles and two original (CUSTOM TITLE) to superimpose

over the picture.

Superimposing titles

- (1) Press TITLE to display the title menu.
 (2) Turn the control dial to select \(\sigma\), then press the dial.
 (3) Turn the control dial to select the desired title, then press the dial. The titles are
- displayed.

 (4) Turn the control dial to select the color, size, or position, then press the dial.

 (5) Turn the control dial to select the desired item, then press the dial.

 (6) Repeat steps 4 and 5 until the title is arranged as desired.

 (7) Press the control dial again to complete the setting.

 (8) When you want to stop recording the title, press TITLE.

1.8 0 3 0 4-6 SCENES 7 SCENES

To superimpose the title from beginning After step 7, press START/STOP to start recording.

To superimpose the title while you are recording

After pressing START/STOP to start recording, start from step 1. In this case, beep or melody is not heard.

To use the custom title

hen you want to use the custom title, select 🖾 in step 2.

Attaching the supplied wide conversion lens

Hold the camcorder with its lens pointing upward. Align the groove on the wide conversion lens with the protruding part on the camcorder lens, then turn the ring in the direction of the



Attaching the wide conversion lens hood

Align the groove on the wide conversion lens hood with the protruding part on the wide conversion lens, then turn the ring in the direction of the arrow.



Note on the wide conversion lens

When the wide conversion lens is attached to the camcorder, the Steady Shot function may not be fully effective.

To attach the wide conversion lens securely

Turn the ring of the lens while lightly pressing the wide conversion lens down on the

Note on the wide conversion lens hood

When the hood is attached to the wide conversion lens, you cannot attach a filter, etc. If you need to use a filter, detach the hood before attaching the filter.

Superimposing a title

otes on superimposing a title

Notes on superimposing a title

"If you have not given any custom title,"———..." appears on the display.

"The FADER function works while the title is displayed, however, the title does not fade.

"If you display the menu or title menu while superimposing a title, the title is not recorded while the menu or title menu is being displayed.

Title color changes as follows: WHITE \longleftrightarrow YELLOW \longleftrightarrow VIOLET \longleftrightarrow RED \longleftrightarrow CYAN \longleftrightarrow GREEN \longleftrightarrow BLUE

Title position changes as follows: When you select the title size "SMALL," you can choose 9 positions. When you select the title size "LARGE" you can choose 8 positions.

- Notes on the title

 Depending on size or position of the title, both of date and time or either of them is not displayed.

 If you input 13 characters or more for a LARGE title, the title is automatically reduced into a SMALL size after the position is set.

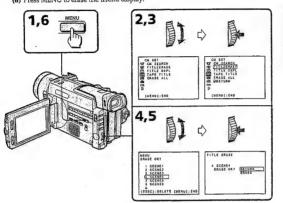
 When the title is displayed, LCD BRIGHT and microphone level indicators do not appear.

 Normally, you can register up to 20 titles, each of which consists of about 5 characters, in the cassette memory. In case the cassette memory has already stored dates, photo data, and a cassette label to its full capacity, you can register up to 11 titles in it. A cassette can store up to 6 dates, 12 photo data, and one cassette label in its memory.

Superimposing a title

Erasing a title

- (1) Press MENU to display the menu.
 (2) Turn the control dial to select (2), then press the dial.
 (3) Turn the control dial to select TITLEERASE, then press the dial.
 (4) Turn the control dial to select the title you want to erase, then press the dial.
 (5) Make sure the title is the one you want to erase, then press the control dial again.
 (6) Press MENU to erase the menu display.



If you use a cassette tape set to prevent accidental erasure, you cannot erase the title. Slide the protect tab so that the red portion is not visible.

Making a custom title

If you use a tape with cassette memory, you can make up to two titles and store them in the camcorder. We recommend you to set the POWER switch to VTR or eject the cassette before

- camcorner. We recomment you to set that 10 recommend you begin.

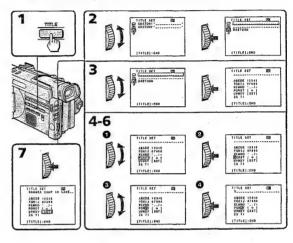
 Your title can have up to 20 characters.

 (1) Press TITLE to display the title menu.

 (2) Turn the control dial to select \(\varphi\), then press the dial.

 (3) Turn the control dial to select the first line (CUSTOM1) or second line (CUSTOM2),
- then press the dial.

 (4) Turn the control dial to select the column of the desired character, then press the
- dial.
 (5) Turn the control dial to select the desired character, then press the dial.
- (6) Repeat steps 4 and 5 until you finish the title.
 (7) To finish the titling work, turn the control dial to select [SET], then press the dial.



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Making a custom title

To edit a title you have stored In step 3, select CUSTOM1 or CUSTOM2, depending on which title you want to edit, then change the title.

If you take 5 minutes or longer to enter characters while a cassette is in the camcorder. The power goes off automatically. Characters you have entered remain. Set the POWER switch to OFF once, then to CAMERA, then proceed from step 1.

To erase a characterIn step 4, turn the control dial to select [4] then press the dial. The last character is erased. Repeat this step until all characters are deleted.

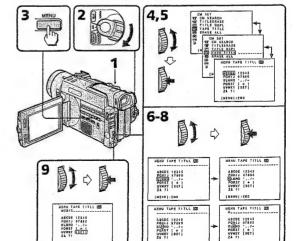
Labeling a cassette

If you use a tape with cassette memory, you can label a cassette. The label can consist of up to 10 characters and is stored in cassette memory. When you insert the labeled cassette and turn the power on, the label is displayed on the LCD screen, in the viewfinder, or on the TV screen.

(1) Insert the cassette you want to label.

1:540

- (1) Insert the cassette you want to label.
 (2) Set the POWER switch to VTR.
 (3) Press MENU to display the menu.
 (4) Turn the control dial to select [2], then press the dial.
 (5) Turn the control dial to select TAPE TITLE, then press the dial.
 (6) Turn the control dial to select the column of the desired character, then press the dial
- (7) Turn the control dial to select the desired character, then press the dial.
 (8) Repeat steps 6 and 7 until you finish the label.
 (9) Turn the control dial to select [SET], then press the dial.



To erase a character
In step 6 turn the control dial to select (+), then press the dial. The last character is erased.

To change the label you have made Insert the cassette to change the label, and operate in the same way to make a new label.

If the W mark appears in step 5

The cassette memory is full. If you erase the title in the cassette, you can label it.

If you have superimposed titles in the cassette When the label is displayed, up to 4 titles also appear.

Note on "----" indicator displayed on the LCD screen or in the viewfinder The "---" indicates the number of characters you can select for the label. When the indicator has fewer than 10 spaces, the cassette memory is full.

Note on the cassettes

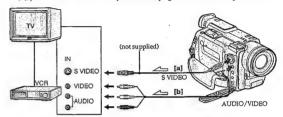
Note on the cassettes If you use a cassette tape set to prevent accidental erasure, you cannot label it. Slide the protect tab so that the red portion is not visible.

Watching on a TV screen

Connect the camcorder to your TV or VCR to watch the playback picture on the TV screen. When monitoring the playback picture by connecting the camcorder to your TV, we recommend you to use house current (mains) for the power source.

Connecting directly to a TV or VCR with Audio/Video input jacks

Open the jack cover and connect the camcorder to the inputs on the TV by using the supplied A/V connecting cable. Set the TV/VCR selector on the TV to VCR. Turn down the volume of the camcorder. To get higher quality pictures in DVCAM format, connect the camcorder to your TV using the 5 video connecting cable (not supplied). If you are going to connect the camcorder using the 5 video connecting cable (not supplied). If you are going to connect the camcorder using the 5 video connecting cable (not supplied). [a], you do not need to connect the yellow (video) plug of the A/V connecting cable [b].



=: Signal flow

If your VCR or TV is a monaural type Connect only the white plug for audio on both the camcorder and the VCR or the TV. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (tight) signal.

When you adjust the TV screen Set COLOR BAR (COLOUR BAR) to ON in the menu system. The color bar is displayed on the TV screen.

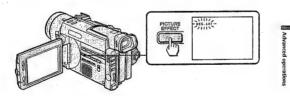
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Viewing the picture with the picture effect

You can play back recorded images with the picture effect. The available picture effects are NEG. ART, SEPIA, B&W and SOLARIZE.

During playback, press PICTURE EFFECT. See page 40 for details on the picture effect.



To return to normal mode
Press PICTURE EFFECT so that the indicator disappears

if you turn the power off or stop playing back. The picture effect is automatically canceled.

The picture you apply picture effects to The picture with the picture effect is not output through the $\frac{1}{8}$ DV IN/OUT jack.

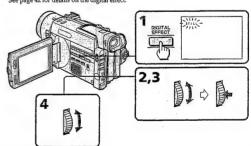
Viewing the picture with the digital effect

You can play back recorded images with the digital effect. The available digital effects are STILL, FLASH, LUMI. and TRAIL. (1) During playback, press DIGITAL EFFECT.

(2) Turn the control dial to select the desired digital effect mode.

(3) Press the control dial. The digital effect indicator lights up and the bars appear. The still picture is stored in memory in the STILL or LUMI. mode.

(4) Turn the control dial to adjust the effects See page 42 for details on the digital effect



To return to normal mode
Press DIGITAL EFFECT so that the indicator disappears.

If you turn the power off or stop playing back. The digital effect is automatically canceled.

The picture you apply digital effects to The picture with the digital effect is not output through the $\frac{1}{8}$ DV IN/OUT jack.

Searching the boundaries of recorded tape with date – date search

You can search for the boundaries of recorded tape with date – Date Search function. To search the beginning of the specific date and play back from the point, there are two way • Using cassette memory, you can select the date displayed on the LCD screen. • Without using cassette memory.

You can only operate with the Remote Commander.

Searching for the date by using cassette memory

You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

(2) Press MENU to display the menu.

(3) Turn the control dial to select CM SEARCH in (12), then press the dial.

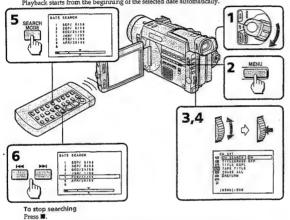
(4) Turn the control dial to select ON, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.

indicator appears.

(6) Press I ← or → I to select the date for playback.

Playback starts from the beginning of the selected date auto



Notes

The interval of the boundaries between the dates needs more than two minutes. The camcorder may not search if the beginning of the recorded date is too close to the next one.

The black cursor on the screen indicates the date that was selected previously.

If a tape has a blank portion in the beginning or between recorded portions, the date search function will not work correctly.

Up to six date data can be stored in a cassette memory. 73

Searching the boundaries of recorded tape with date - date search

Searching for the date without using cassette memory

If you use the tape without cassette memory, skip steps 3 and 4.
(1) Set the POWER switch to VTR.

(1) Set the FOWING SWIGHTO VI.

(2) Press MENU to display the menu.

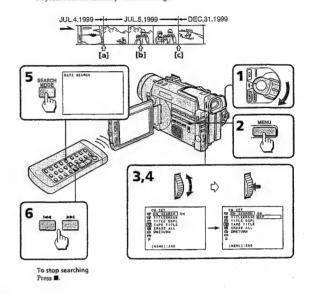
(3) Turn the control dial to select CM SEARCH in (11), then press the dial.

(4) Turn the control dial to select OFF, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.

(6) When the current position is [b], press I ← to search towards [a] or press ▶ ► to search towards [c]. Each time you press I ← or ▶ ► I, the camcorder searches for the previous or next date.

Playback starts automatically when date changed.



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Searching the boundaries of recorded tape with title – title search

You can search for the boundaries of recorded tape with title – Title Search function. If you use a tape with cassette memory, you can select the title displayed on the LCD screen.

You can only operate with the Remote Commander.

Searching for the title by using cassette memory

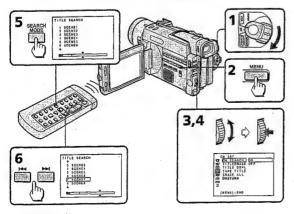
You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

(2) Press MENU to display the menu.
(3) Turn the control dial to select CM SEARCH in , then press the dial.
(4) Turn the control dial to select ON, then press the dial.
(5) Press SEARCH MODE on the Remote Commander repeatedly, until the title search indicator appears.

(6) Press I◄◀ or ➤➤I to select the title for playback.

Playback starts from the scene of the selected title automatically



You cannot superimpose or search a title, if you use a cassette tape without cassette

memory.
 The camcorder may not search, if a tape has a blank portion in the between of the record

Searching for a photo - photo search/photo scan

You can search for the recorded still picture - Photo Search function. There are two modes in

Photo Search:

• Using cassette memory, you can select the recorded date which is displayed on the LCD

screen.

• Without using cassette memory.

You can also search for still pictures one after another and display each picture for five seconds automatically – Photo Scan function. Even if your tape has no cassette memory, you can use the Photo Scan function.
You can only operate with the Remote Commander.

Searching for a photo by using cassette memory – photo search

You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

(1) Set the FOWEN SWINGTO WING.

(2) Press MENU to display the menu.

(3) Turn the control dial to select CM SEARCH in

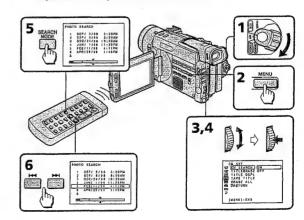
(3) Turn the control dial to select ON, then press the dial.

(4) Turn the control dial to select ON, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the photo

search indicator appears.

(6) Press I or ➤ I to select the date for playback. Playback starts from the photo of the selected date auton



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Searching for a photo - photo search/photo

To stop searching

Note

Note When you play back a tape which has a blank portion in the between of the recorded portions, the photo search function may not work correctly.

Searching for a photo without using cassette memory – photo. 200

If you use a tape without cassette memory, skip the steps 3 and 4.

(1) Set the POWER switch to VTR.

(2) Press MENU to display the menu.

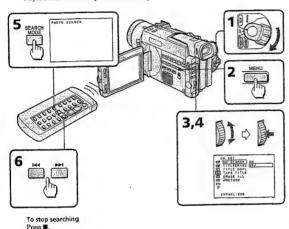
(3) Turn the control dial to select CM SEARCH in (1), then press the dial.

(4) Turn the control dial to select OFF, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the photo search indicator appears.

(6) Press | ← | or → | to select the photo for playback. Each time you press | ← | or → | the camcorder searches for the previous or next scene.

Playback starts from the photo automatically.



Searching for a photo – photo search/photo sc

Scanning photo – photo scan

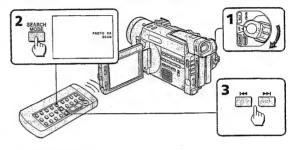
You can use this function whether the tape has cassette memory or not.

(1) Set the POWER switch to VIR.

(2) Press SEARCH MODE on the Remote Commander repeatedly until the photo scan indicator displayed on the LCD screen.

(3) Press | ← or ▶►.

ch photo is displayed for about 5 seconds automatically.



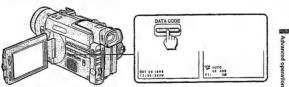
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Displaying recording data – data code

You can display recording data (date/time or various settings when recorded) on the LCD screen or in the viewfinder during playback (Data Code). The Data Code is also displayed on the TV.

Press DATA CODE during playback.



To select the items to be displayed

Set DATA CODE in the menu system, and select the following items:

When DATE/CAM is selected: date → various settings (SteadyShot OFF, PROGRAM AE, shutter speed, white balance, aperture value, gain) → no indicator.

When DATE is selected: date → no indicator.

When you record a picture with adjusting the exposure to the darkest manually "CLOSE" appears at the position of the iris indicator on the LCD screen or in the viewfinder.

When bars (----) appear

• A blank portion of the tape is being played back.

• The tape was recorded by a canncorder without having date and time set.

• The lape is unreadable due to tape damage or noise.

Note

The pictures taken with the memory card slot is not recorded with the camera data.

Editing onto another tape

You can create your own video program by editing with any other [BYCAM], DVCAM, DY DV, "MD min DV, B B mm, HIB HIB, (BB VHS, \$BBS S-VHS, \$BBS VHS, \$BBS S-VHSC, \$BBS S-VHSC, \$BBS S-VHSC, \$BBS S-VHSC, \$BBS S-VHSC, A BB Betamax or "Gibbs I be have any Compared to the saudio/video imputs. You can edit with little deterioration of picture and sound quality when using the i.LINK cable (DV connecting

Before editing

Connect the camcorder to the VCR using the supplied A/V connecting cable or the VMC-IL4415/IL4435/2DV/4DV i.LINK cable (DV connecting cable) (not supplied).

Using the A/V connecting cable [a] or S video connecting cable (not supplied) [b]
Set the input selector on the VCR to LINE.

S VIDEO IN 0000 AUDIO/VIDEO VIDEO IN The same of the sa [a] AUDIO IN

=: Signal flow

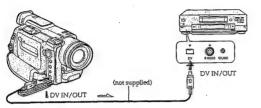
Notes on editing when using the A/V connecting cable

• Press DATA CODE, SEARCH MODE on the Remote Commander, or DISPLAY to turn off the display indicators. Otherwise, the indicators will be recorded on the tape.

• If your TV or VCR is a monaural type, connect the yellow plug of the A/V connecting cable for video to the TV or VCR. Connect only the white or red plug for audio to the TV or VCR. Connect only the white or red plug for audio to the TV or VCR. If you connect the white plug, the sound is I. (left) signal. If you connect the red plug, the sound is R (right) signal.

• You can edit precisely by connecting a LANC cable to this camcorder and other video equipment having fine synchro-editing function, using this camcorder as a player.

Using the i.LiNK cable (DV connecting cable)
Simply connect the VMC-IL4415/IL4435/2DV/4DV i.LiNK cable (DV connecting cable)
(not supplied) to \$\frac{1}{2}\text{DV IN/OUT}\$ and to DV IN/OUT of the DV products. With digital-to-digital connection, video and au dio signals are transmitted in digital form for high-quality editing.



Notes on editing when using the i.LINK cable (DV connecting cable)

• You can record picture, sound and system data at the same time on the DV products by using the i.LINK cable (DV connecting cable) only.

• You cannot edit the titles, display indicator or the contents of cassette memory.

• If you record playback pause picture with the §, DV IN/OUT jack, the recorded picture becomes rough. And when you play back the picture using the other video equipment, to picture may jitter.

• You can also use the camcorder as a recorder with this connection. In this case "DV IN" indicator appears on the screen.

• When you use the camcorder as a recorder, the color balance may be incorrect on the monitor screen. But this is not recorded on the tape.

To perform a more precise editing Use DV synchro-editing function (see page 82).

Starting editing

(1) Insert a blank tape (or a tape you want to record over) into the VCR, and insert you recorded tape into the camcorder.

(3) On the VCR, locate the recording start point and set the VCR in recording pause mode.

(4) Press II on the camcorder and VCR simultaneously to start editing.

To edit more scenes

To stop editing
Press
on both the camcorder and the VCR.

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Editing partially on a mini DVCAM tape – DV synchro-editing

- Notes

 If you use other than Sony DVCAM equipment, the synchronization may become less
 precise or the unit may not function properly.

 You cannot set DV EDITING IN or OUT on a blank portion of the tape.

- Errors in duplicating
 If you connect this camcorder to Sony equipment with DV jack, the range of errors is within +/-5 fames. The range may become wider in the following conditions.

 *The interval between DV EDITING IN and OUT is less than five seconds.

 *DV EDITING IN is set at the beginning of the tape.

 *DV SDITING IN is set at the beginning of the tape.

If you do not make connections with i.LINK cable (DV connecting cable) The screen shows NOT READY, and you cannot select DV EDITING.

Editing partially on a mini DVCAM tape – DV synchro-editing

By simply selecting the scenes to edit, you can duplicate the desired portion on a tape, using other equipment connected with an iLINK cable (DV connecting cable). The scenes can be selected by frame. Since the camcorder exchanges digital signals, you can edit with little audio and video deterioration. You cannot duplicate titles, display indicators or the contents of cassette memory. The connection is the same as on page 81.

(1) Insert a recorded tape into the camcorder and insert a blank tape into the DVCAM product.

(1) Insert a recorded tape into the camcorder and insert a blank tape into the DVCAM product.

(2) Set the POWER switch of the camcorder to VTR.

(3) Set the input selector to DV input on the DVCAM product. If the DVCAM product is another DVCAM camcorder, set its POWER switch to VTR.

(4) Press MENU to display the menu.

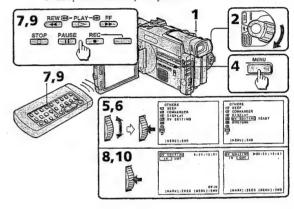
(5) Turn the control dial to select Eig. then press the dial.

(6) Turn the control dial to select DV EDITING, then press the dial.

(7) Using the tape transport buttons, locate the point where you want to start editing, then press II to set the camcorder in playback pause mode.

(8) Press the control dial or MARK on the Remote Commander to set DV EDITING IN.

IN.
(9) Using the tape transport buttons, locate the point where you want to end editing, then press II to set the camcorder in playback pause mode.
(10) Press the control dial or MARK on the Remote Commander to set DV EDITING OUT. The editing process starts. When the process ends, the camcorder and the DVCAM product automatically set to pause mode.



Recording from a VCR or TV

You can record a tape from another VCR or a TV program from a TV that has audio/video outputs. Connect the cameorder to the VCR or TV.

(1) Set the POWER switch to VTR and set DISPLAY to LCD in the menu system.

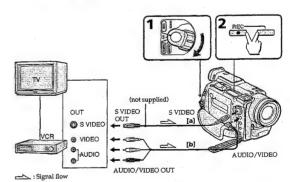
(2) Press ● REC and the button on the right together at the point where you want to

start recording.

In recording and the recording pause mode, S VIDEO and AUDIO/VIDEO jacks automatically work as input jacks.

If your VCR or TV has an S video jack, connect using the S video cable (not supplied) [a] to

obtain a high quality picture



If your TV or VCR is a monaural type, connect the yellow plug of the A/V connecting cable for video to the TV or VCR. Connect only the white or red plug for audio to the TV or VCR. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.

If you are going to connect the camcorder using the S video cable (not supplied) [a], you do not need to connect the yellow (video) plug of the A/V connecting cable [b] .

- Notes

 If the 5 video plug is not provided on your TV or VCR, do not connect the 5 video cable (not supplied) to the camcorder. Pictures will not appear.

 The dual sound cannot be recorded in this camcorder.

 If you fast-forward or slow-playback on the other equipment, the image being recorded may turn black and white. When recording from other equipment, be sure to play back the

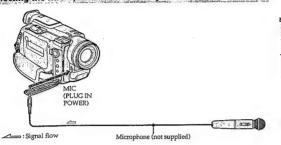
To stop recording Press □.

Audio dubbing

You can record an audio sound to add to the original sound on a tape by connecting audio rou can technical and the state of the audio equipment, you can add sound to you recorded tape by specifying the starting and ending points. The original sound will not be

erased. You can only operate with the Remote Commander.

Connecting the microphone with the MIC jack



NOTE γ You can check the recorded picture and sound by connecting the AUDIO/VIDEO jack to a γ V.

TV.

The recorded sound is not output from a speaker. Check the sound by using the TV or

Connecting the microphone with the intelligent accessory shoe using the XLR adaptor

Connection is the same as shown in p. 61.



NOTE You can check the recorded picture and sound by connecting the AUDIO/VIDEO jack to a TV.

TV.

The recorded sound is not output from a speaker. Check the sound by using the TV or

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Audio dubbing

To play back the new recorded sound

Adjust the balance between the original sound (STI) and the new sound (ST2) by selecting AUDIO MIX in the menu system.



Five minutes after when you disconnect the power source or remove the battery pack, the setting of AUDIO MIX returns to the original sound (ST1) only. The factory setting is original sound only.

- If you make all the connections
 The audio input to be recorded will take precedence over others in the following order.

 MIC (PLUG IN POWER) jack
- Intelligent accessory shoe
 AUDIO/VIDEO jack
 Built-in microphone

If an i.LINK cable (DV connecting cable) is connected to this unit You cannot add a sound to a recorded tape.

If you disconnect or connect a cable to the camcorder during recording The recording may stop.

Notes on audio dubbing

- Notes on audio dubbing

 A new sound cannot be recorded on a tape already recorded in the FS48K (16-bit) mode (32 kHz, 441 kHz or 48 kHz).

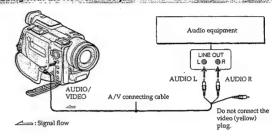
 When an external microphone is not connected, the recording will be made through the built-in microphone of the camcorder.

 When an external microphone of the camcorder.

 If you add a new sound on a tape recorded with another camcorder (including DSR-PD100/PD100P), the sound quality may become worse.

- You cannot add audio with the BDV IN/OUT jack.

Dubbing with the AUDIO/VIDEO jack



Note

Note
The picture is not output from the AUDIO/VIDEO jack. Check the recorded picture on the
LCD screen or in the viewfinder, as well as check the recorded sound by using a speaker or

Dubbing with the built-in microphones

No connection is necessary

Adding an audio sound on a recorded tape

(1) Insert your recorded tape into the camcorder.

(2) Set the POWER switch to VTR.

(3) On the camcorder, locate the point where the recording should begin by pressing ◀◀ or ▶▶. Then press II to set it to playback pause mode.

(4) Press AUDIO DUB on the Remote Commander. (5) Press II on the Remote Commander and at the same time start playing back the audio

(6) Press ■ on the Remote Commander at the point where you want to stop recording.

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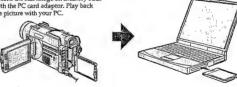
Memory card slot operations

Using the memory card slot – introduction

This camcorder is equipped with a memory card slot that conforms to ATA specification of PC Card standard.

You can record still images to memory sticks using the supplied PC card adaptor or to PC cards (not supplied). You can exchange image data with other equipment such as personal computers etc., using memory sticks or PC cards.

Image Record the still image on memory stick with the PC card adaptor. Play back the picture with your PC.



About memory stick and PC card adaptor
The memory stick is a brand new type of recording medium that records images and sounds as digital data and operates just like a PC card.

Memory Stick is the registered trademark of Sony Corporation.



- Do not touch the terminal of the memory stick [a] by your hand or a metal object.
 Do not attach any other material than the supplied label on the label space of the memory
- stick [b].

 Keep dust or extraneous matter out of the connector and memory stick slot of the PC card

- Keep dust or extraneous matter out of the connector and memory stick slot of the daptor.
 Do not strike, bend, or drop the memory stick or PC card adaptor.
 Do not disassemble or convert the memory stick or PC card adaptor.
 Do not wet the memory stick or PC card adaptor.
 Do not use or store the memory stick or PC card adaptor in the following areas:
 Hot locations such as the inside of a car or the outdoors under hot weather.
 Locations exposed to direct sunlight.
 Humid or corrosive locations.
 Carry or store the memory stick or PC card adaptor in its supplied case.

- For proper operation

 Setting the write-protect switch to "LOCK" disables you to record or delete data.

 Setting the write-protect switch to "LOCK" disables you to record or delete data.

 We recommend that you make a backup copy of important data.

 Do not remove the memory stick while reading or writing data.

 Recorded data may be lost or damaged in the following situations:

 When you remove the memory stick or PC card adaptor or turn off the camcorder while reading or writing data.

 When you use the memory stick or PC card adaptor in the locations subject to static electricity or electrical noise.

Using the memory card slot — introduction

Data file names of image Example: MVC00001.jpg

On file format (JPEG)

This unit compresses image data in IPEG format (extension.jpg) and simultaneously records thumbnail data for the index screen. The index screen data is varies only on this unit.

The types of PC cards you can use
Use TYPE II PC cards that conform to ATA specification of PC card standard. Format the PC card with this camcorder before use. Once you format the PC card, you can store data of up to 64 MB in it.

Compatible PC cards

18A3, HB286015A3, HB286030A3, HB286045A3, HB286060A3

SANDISK SDP3B-2-101-00, SDP3B-4-101-00, SDP3B-6-101-00, SDP3B-8-101-00, SDP3B-10-101-00, SDP3B-20-101-00, SDP3B-40-101-00 Be sure to refer to the instruction manual supplied with the PC card.

About the power source
When you use the memory card slot, getting the power from a wall outlet is recomusing the AC power adaptor.

About the remaining battery indicator
This camcorder displays remaining recording/playback time on the LCD screen or in the viewfinder. This function may not work properly in certain operating conditions. Especial when using the memory card slot, the correct remaining time may not be indicated due to increased power consumption. This is not a malfunction.

Power supply
When using a video light (not supplied) or similar equipment connected to the intelligent accessory shoe of the camcorder, recording an image to a memory stick or PC card may result in a temporary power shortage in the accessory shoe, causing the video light to go out. This does not affect other functions.

When using a battery case (not supplied) such as the EBP-L7, you cannot perform operations that require the PC card adaptor. The screen displays "FOR "InfoLITHIUM" BATTERY ONLY."

Note on playback compatibility

NOTE ON PIAYDACK COMPATIBILITY
This camcorder is not guaranteed to properly play back images shot with other equipment.
The images shot with this camcorder are not guaranteed to be played back properly with

CAUTION

Do not insert your finger or an object into the memory card slot.

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Using the memory card slot—introduction

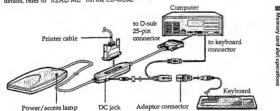
When the PC card adaptor or PC card does not come out Remove the battery before ejecting the PC card adaptor/PC card.

Connecting the PC card/parallel port adaptor with your computer

To display images recorded on the memory stick or PC card on the computer monitor, connect the PC card/parallel port adaptor with your computer. Turn off your computer, and then connect the parallel port adaptor with your computer as illustrated below.

musuateu berow.

Install the MSAC-PR1 device driver into your computer from the supplied CD-ROM. For details, refer to "READ ME" on the CD-ROM.



To eject the PC card/PC card adaptor

- Notes on the connection

 Select the one from the two DIN connectors that matches the keyboard connector of the computer, and use this connector to connect the computer.

 When connecting the PC card/parallel port adaptor and the keyboard, make sure sizes of the DIN connector of the keyboard and power cord match, then use the adaptor connector to connect.
- For notebook computers, there is no need to connect the keyboard.

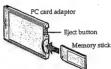
Note on the power/access lamp
Do not insert/remove the PC card adaptor or memory stick when the power/access lamp is
flashing; otherwise data on the memory stick or PC card may become damaged.

Using the memory card slot—introduction

Inserting a memory stick into PC card adaptor

Insert a memory stick with its connector side facing down.

Before inserting, check that the write protect switch is not set to LOCK position for recording a still picture.



To eject the memory stick

Inserting the PC card adaptor or PC card

With the upper side of the connector facing the LCD panel, insert the PC card adaptor or PC card until it clicks.



To eject the PC card adaptor or PC card Slide the MEMORY RELEASE lever in the direction of of the arrow as illustrated below.



When the access lamp is flashing
Never shake or strike the unit. Do not turn the power off, eject a PC card adaptor/PC card
or remove the battery pack. Otherwise, the image data breakdown may occur.

Using the memory card slot – introduction

Selecting the image quality mode

- You can select one of three image quality modes in still picture recording. If you do not make any selection, the unit automatically records in SUPER FINE mode. (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right
- (11) Set the POWER switch to MEMONY. Make sure that the lock knob is set (unlock) position.

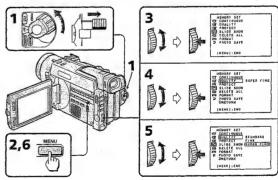
 (2) Press MENU to display the menu.

 (3) Turn the control dial to select □, then press the dial.

 (4) Turn the control dial to select QUALITY, then press the dial.

 (5) Turn the control dial to select desired image quality, then press the dial.

 (6) Press MENU to erase the menu display.



Setting	Meaning
SUPER FINE (SFN)	This is the highest image quality in this camcorder. The number of still images you can record is less than FINE. The image is compressed to about 1/4.
FINE (FIN)	Use this mode when you want to record high quality images. The image is compressed to about 1/6.
STANDARD (STD)	This is the standard image quality. The image is compressed to about $1/10$.

Using the memory card slot – introduction

The difference in image quality mode

A recorded image is compressed in JPEG format before stored into memory. The memory capacity allotted to each image varies depending on the selected quality mode. Details are shown in the table below. (The number of pixel is 640 x 480, regardless of image quality mode. Data volume before compression is about 600 KB.)

image quality mode	Memory capacity	
SUPER FINE	About 150 KB	
FINE	About 100 KB	
STANDARD	About 60 KB	

Approximate numbers of images you can record on a memory stick (4 MB) The number of images you can record is different depending on which image q you select and the complexity of the subject.

SUPER FINE (SFN) about 20 to 22 images FINE (FIN) about 39 to 44 images STANDARD (STD) about 66 to 75 images

In some cases, changing image quality mode may not affect the image quality, depending on the types of images you are shooting.

Using the memory card slot – introduction

Formatting (initializing) a memory stick or a PC card

- (1) When you format a memory stick, insert a PC card adaptor (with a memory stick inside) into the memory card slot. When you format a PC card, insert the card into

- inside) into the memory card slot. When you format a PC card, insert the card into the memory card slot.

 (2) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (unlock) position.

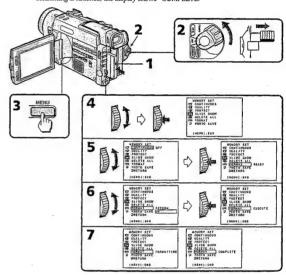
 (3) Press MENU to display the menu.

 (4) Turn the control dial to select [6], then press the dial.

 (5) Turn the control dial to select RORMAT, then press the dial.

 (6) Turn the control dial again to select OK, then press the dial. The display shows "EXECUTE," then press the dial again.

 (7) The display shows "FORMATTING," and formatting procedure begins. When formatting is finished, the display shows "COMPLETE."



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Using the memory card slot - introduction

- Notes on formatting

 Formatting erases all information on the memory stick or PC card, including the protected image data. Check the contents of the memory stick or PC card before formatting.

 Be sure that the battery is fully charged when formatting a memory stick or PC card. Formatting takes about three minutes maximum.

 Do not turn the POWER switch or press any button while the display shows "FORMATTING."

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Recording an image from a mini DVCAM tape as a still image

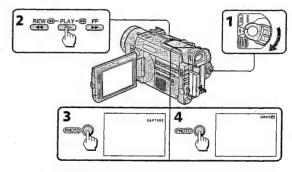
This camcorder can read moving picture data recorded on a mini DVCAM tape and record it as a still image on a memory stick or a PC card. The unit can also take in moving picture data through the input connector and record it as a still image on a memory stick or a PC card.

Before operation

- Insert a recorded mini DVCAM tape.
 Insert a recorded mini DVCAM tape.
- (1) Set the POWER switch to VTR.
- (2) Press P. The picture recorded on the mini DVCAM tape is played back.

 (3) Keep pressing PHOTO lightly until a picture from the mini DVCAM tape freezes.

 "CAPTURE" appears on the LCD screen or in the viewfinder. Recording does not
- (4) Press PHOTO deeper. The image displayed on the screen will be recorded on a memory stick or a PC card. The recording is complete when the bar scroll indicator disappears.



When the access lamp is flashing
Never shake or strike the unit. As well do not turn the power off, eject a PC card adaptor/PC card or remove the battery pack. Otherwise, the image data breakdown may occur.

ding an image from a mini DVCAM tape as a still ii

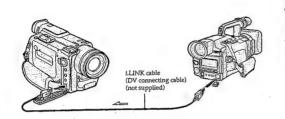
Recording a still image from a mini DVCAM tape right after turning on the power Saving the data may take a little more time than usual. This is not a malfunction.

Sound recorded on a mini DVCAM tape
You cannot record the audio from a mini DVCAM tape.

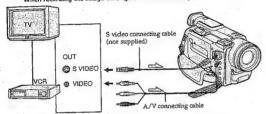
About titles recorded on the mini DVCAM tape
You cannot record titles. The title is not displayed during recording.

Recording a still image from other equipment

When recording the image through the B DV IN/OUT jack



ng the image through the AUDIO/VIDEO jack



(1) Set the POWER switch to VTR and set DISPLAY to LCD in the menu system.

(2) Play back the recorded tape, or turn the TV on to see the desired program.

(3) Follow the steps 3 and 4 on page 96.

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Copying still images from a mini DVCAM tape—photo save

When the access lamp is flashing
Never shake or strike the unit. As well do not turn the power off, eject a P.C card adaptor/P.C
card or remove the battery pack. Otherwise, the image data breakdown may occur.

To record all the images recorded on the mini DVCAM tape Rewind the tape all the way and start copying.

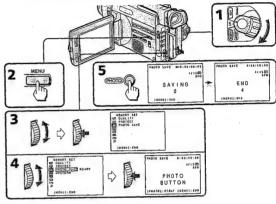
When you change memory sticks in the middle of copying
The unit resumes copying from the last image recorded on the previous memory stick.

Copying still images from a mini DVCAM tape – photo save

Using the search function, you can automatically take in only the still images from mini DVCAM tapes and record them on a memory stick or a PC card in sequence.

- Before operation
 Insert a recorded mini DVCAM tape and rewind the tape.
 Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.
- (1) Set the POWER switch to VTR.

- Set the POWER switch to VTR.
 Press MENU to display the menu.
 Trun the control dial to select \(\frac{\pi}{2} \), then press the dial.
 Turn the control dial to select PHOTO SAVE, then press the dial. "PHOTO BUTTON" appears on the LCD screen or in the viewfinder.
 Press PHOTO deeper. The still image from the mint DVCAM tape is recorded on a memory stick or PC card. The number of still images copied is displayed. "END" is displayed when copying is completed.



To cancel copying

When the memory of the memory stick or PC card is full "MEMORY FULL" appears on the screen, and the copying stops. Insert and stick or PC card and repeat the procedure from step 1.

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Recording still images on memory sticks or PC cards – memory photo recording

You can record still images with all the pixels (progressive) on a memory stick or an optional PC card.

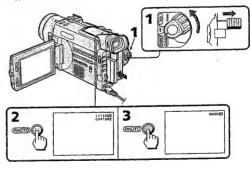
Refore operation

Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (unlock) position.

 (2) Keep pressing PHOTO lightly. A picture freezes and "CAPTURE" appears on the LCD screen or in the viewfinder. Recording does not start yet.

 (3) Press PHOTO deeper. The image displayed on the screen will be recorded on a memory stick or PC card. The recording is complete when the bar scroll indicator disappears.



When the POWER switch is set to MEMORY

The following functions do not work: digital zoom (more than 12x), wide TV mode, digital effect, picture effect, title.

When you are recording a still image You can neither turn off the power nor press PHOTO.

When you press the PHOTO button on the Remote Commander
The camcorder immediately records the image that is on the screen when you press the

When using a video light (not supplied) or similar equipment mounted on the intelligent accessory shoe

Recording an image on a memory stick or PC card may result in a temporary power
shortage in the accessory shoe, causing the video light to go out. This is not a malfunction.

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Recording still images on memory sticks or PC cards —memory photo recording

Recording images continuously

You can shoot continuously by selecting one of two modes described below.

Continuous mode [a]
You can record from 2 to 4 pictures continuously.

Multi screen mode [b]
You can record 9 still pictures continuously on a single page.



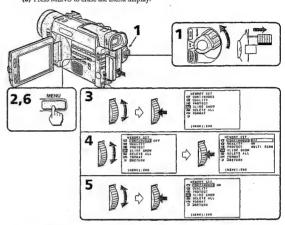


Note on the video flash light You cannot use the video flash light (not supplied) during continuous or multi screen mode.

Recording still images on memory sticks or PC cards _memory photo recording

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right Set the FOWER switch to MEMORY. Make sure that the FOCK ALMOS IS (unlock) position.
 Press MENU to display the menu.
 Turn the control dial to select [], then press the dial.
 Turn the control dial to select CONTINUOUS, then press the dial.
 Turn the control dial to select the desired setting, then press the dial.

- (6) Press MENU to erase the menu display.



Settings of continuous shooting

Setting	Meaning (indicator on the screen)	
OFF	The unit shoots one image at a time. (no indicator)	
ON	The unit shoots 2 to 4 still images at about 0.8 sec intervals. (😰)	
MULTI SCRN	The unit shoots 9 still images at about 0.3 sec intervals and displays the images on a single page divided into 9 boxes. (田)	

The number of images in continuous shooting
The number of images you can shoot continuously varies depending on the image quality

mode.
SUPER FINE: 2 images
FINE: 3 images
STANDARD: 4 images

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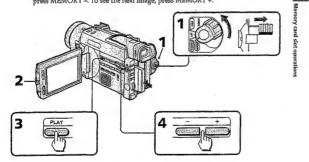
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Viewing a still picture – memory photo playback

You can play back still images recorded on a memory stick or PC card. You can also play back 6 images at a time by selecting the index screen.

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right Set the FOWER switch to MEMORY. Make sure that the lock knob is set to the ri (unlock) position.
 While pressing OPEN, open the LCD panel.
 Press MEMORY PLAY. The last recorded image is displayed.
 Press MEMORY P- to select the desired still image. To see the previous image, press MEMORY -. To see the next image, press MEMORY +.



To stop memory photo playback
Press MEMORY PLAY again. Otherwise, the image through the lens will not appear on the screen.

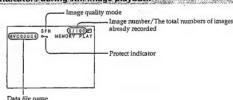
- To play back recorded images on a TV screen
 Connect this camcorder to the TV with the supplied A/V connecting cable before
- Ormeter this camorder to the TV with the supplies A/V contacting date elected operation.

 When operating memory photo playback on a TV or the LCD screen, the image quality may appear to have deteriorated. This is not a malfunction. The image data is as good as ever.

 Turn the audio volume of the TV down before operation, or there may be noise (howling) coming from the TV speakers.



Screen indicators during still image playback



Playing back 6 recorded images at a time (index screen)

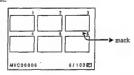
You can play back 6 recorded images at a time. This function is especially useful when searching for a particular image.



MEMORY INDEX

Press MEMORY INDEX.

A red ▶ mark appears above the image that is displayed before changing to index screen



- To display the following 6 images, keep pressing MEMORY +
 To display the previous 6 images, keep pressing MEMORY -.

To return to the normal playback screen (single screen)
Press MEMORY +/- to move the > mark to the image you want to display on full screen,
then press MEMORY PLAY.

Viewing a still picture — memory photo playback

Note
When displaying the index screen, the number appears above each image. This indicates the
recording order on the memory stick or PC card. These numbers are different from the data
file names.

Files modified with personal computers
Those files cannot be displayed on the index screen. Image files shot with other equipment cannot be displayed on the index screen either.

The image quality mode indicator
The indicator may show a different mode in which you recorded. This is not a malfunction.
The indicator shows the volume of the data file. For instance, if the volume of SFN image is
small enough, it may be displayed as FIN or STD.

Viewing the recorded images using a personal computer

The image data recorded with this camcorder is compressed in the JPEG format. If your personal computer has an application software that allows you to see JPEG images, you can see images recorded on a memory stick or PC card on a computer screen. For detailed instructions on operation, refer to the operating instruction supplied with the application

Examples of recommended OS/application software

Notes

For Macintosh, you can use the floppy disk recorded with this camcorder using the PC Exchange with Mac COS system 7.5 or higher. A viewing application for Macintosh is also necessary for viewing images.

When you see images recorded with the camcorder on a personal computer, the display may show lines on the edge of the screen, depending on the status of video input signals at the moment. This is not a malfunction.

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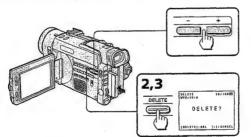
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Deleting images

Deleting selected image

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit

- (1) Display the image you want to erase.
 (2) Press MEMORY DELETE. "DELETE?" appears on the LCD screen.
 (3) Press MEMORY DELETE again. The selected image is deleted.



To cancel deleting an image

To delete an image displayed on the index screen sired image and follow steps 2 and 3.

Notes

• To delete protected image, cancel their protection first.

• Once you delete an image, you cannot restore it. Check the images to delete carefully before deleting them.

Preventing accidental erasure — PROTECT

To prevent accidental erasure of important images, you can protect selected images.

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Display the image you want to protect.

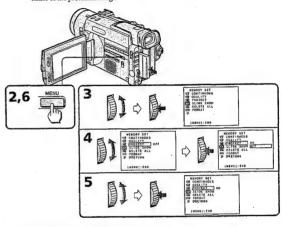
 (2) Press MENU to display the menu.

 (3) Turn the control dial to select [7], then press the dial.

 (4) Turn the control dial to select PROTECT, then press the dial.

 (5) Turn the control dial to select ON, then press the dial.

 (6) Press MENU to erase the menu. The "0-" mark is displayed beside the data file name of the protected image.



To cancel protection of the image Select OFF in step 5, then press the control dial.

Formatting erases all information on the memory stick or PC card, including the protected image data. Check the contents of the memory stick or PC card before formatting.

Deleting images

Erasing all the images

You can delete all the unprotected images in a memory stick or PC card.

Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (1) Set the FOWER switch to MINNORT. Make sure that the lock know is set (urlock) position.

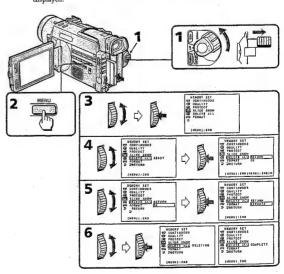
 (2) Press MENU to display the menu.

 (3) Turn the control dial to select □, then press the dial.

 (4) Turn the control dial to select □, then press the dial.

 (5) Turn the control dial to select OK, then press the dial. "OK" changes to "WENCILIT"."

- "EXECUTE.
- 6.5 Turn the control dial to select EXECUTE, then press the dial. "DELETING" appears on the LCD screen. When all the unprotected images are deleted, "COMPLETE" is displayed



Deleting images

To cancel deleting all the images on the memory stick or PC card Select ⊋ RETURN in step 4, then press the control dial.

While "DELETING" appears
Do not turn the POWER switch or press any buttons.

Copying the image recorded with the memory card slot to mini DVCAM tapes

You can copy still images or titles recorded with the memory card slot and record them to a mint DVCAM tape.

- Before operation
 Insert a mini DVCAM tape for recording.
 Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.
- (1) Set the POWER switch to VTR.

 (2) Using the tape transport buttons, search a point where you want to record the desired still image. Set the mini DVCAM tape to playback pause mode.

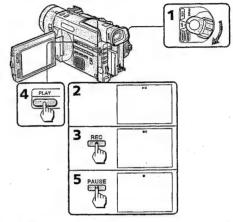
 (3) Press

 REC to set the mini DVCAM tape to recording pause mode.

 (4) Play back the still image you want to copy.

 (5) Press II to start recording and press II again to stop.

 (6) If you have more to copy, repeat steps 4 and 5.



To stop copying in the middle

During copying
You cannot operate the following buttons:
MEMORY PLAY, MEMORY INDEX, MEMORY DELETE, MEMORY +, and MEMORY -.

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Copying the image recorded with the memory card slot to mini DVCAM tapes

Note on the index screen
You cannot record the index screen.

If you press the EDITSEARCH buttons during pause mode Memory playback stops.

If you press the DISPLAY button in Standby or Recording mode
You can see memory playback and the file name indicators in addition to the indicators
pertinent to mini DVCAM tapes, such as the time code indicator.

Playing back images in a continuous loop —SLIDE SHOW

You can automatically play back images in sequence. This function is useful especially when checking the recorded images or during a presentation.

Before operation Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right

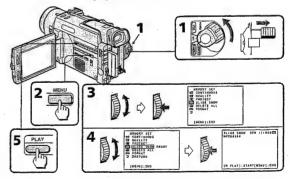
- (unlock) position.

 (2) Press MENU to display the menu.

 (3) Turn the control dial to select □, then press the dial.

 (4) Turn the control dial to select SLIDE SHOW, then press the dial.

 (5) Press MEMORY PLAY. The unit plays back the images recorded on a memory stick or PC card in sequence. When all the images have been played back, the display shows the first image again and the slide show ends.



To cancel the slide show Press MENU to stop the slide show.

To pause during a slide show Press MEMORY PLAY to set it in a pause.

To start the slide show from a particular image Select the desired image using MEMORY +/- buttons before step

To view the recorded images on TV Connect this camcorder to a TV with the supplied A/V connecting cable before operation.

Playing back images in a continuous loop - SLIDE SHOW

Note on the slide show You cannot make copy of the slide show on a mini DVCAM tape.

If you change the memory stick or PC card during operation
The slide show does not operate. If you change the memory stick or PC card, be sure to
follow the steps again from the beginning.

Additional information

Compatibility of DVCAM and DV formats

DVCAM format is developed as a more reliable and higher end format than consumer DV format. Here explained are the differences, compatibility, and limitations on editing about DVCAM and DV formats.

Differences between DVCAM and DV formats

ltem	DVCAM	DV	
Track pitch	15 µm	10 μm	
Audio sampling frequency	12 bit: 32 kHz 16 bit: 48 kHz	12 bit: 32 kHz 16 bit: 32 kHz, 44.1 kHz, 48 kHz	
Audio recording mode 1)	Lock mode	Unlock mode	
Time code	Drop frame system or Non-drop frame system (SMPTE time code)	Drop frame system only	

¹³There are two modes for audio recording, lock mode and unlock mode. In lock mode, the sampling frequencies of audio and video are synchronized. In unlock mode, which consumer DV format adopts, the two sampling frequencies are independent. Therefore, lock mode is more effective than unlock mode in digital processing and nooth transition during audio editing.

Mini DVCAM and mini DV cassettes

Both mini DVCAM and mini DV cassettes can be used on mini DVCAM or mini DV video equipment. The recording format of picture is defined according to recorder's format as described below.

Recorder's format	Cassette's format	Recording format	
DVCAM	DVCAM	DVCAM	
	DV	DVCAM	
DV	DVCAM ·	DV	
	DV	DV	

This digital camcorder complies with DVCAM format. Though mini DV cassettes can be used for recording, we recommend you to use uniti DVCAM cassettes to get the most out of high reliability of DVCAM format. The recording time of mini DV cassettes is 2/3 shorter than that indicated on the mini DV cassettes.

Compatibility on playback
Some tapes cannot be played back on mini DVCAM or mini DV video equipment.

Tape	On DV video equipment	On DVCAM video equipment
DV-formatted	Can be played back (only when recorded in SP	Can be played back mode)
DVCAM-formatted	Some equipments may be Can be played back able to play back	

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Compatibility of DVCAM and DV formats

Compatibility on editing using DV connectors
When this digital cancorder is connected to other mini DVCAM or mini DV video
equipment using DV connectors, the recording format of edited tapes is defined
according to recorder's format as described below.

Player's format	Recorder's format	Recording format
DVCAM	DVCAM	DVCAM
DVCAM	DV	DV +)
DV 5)	DVCAM	DVCAM ⁷⁾
DV 59	DV	DV 4)
DVCAM	DVCAM	DVCAM 1)
DVCAM	DV	DV
DV	DVCAM	DVCAM 1)
DV	DV	DV
	DVCAM DV ⁵⁾ DV ⁵⁾ DVCAM DVCAM DVCAM	DVCAM DVCAM DVCAM DV DV 3° DVCAM DVCAM DVCAM DVCAM DVCAM DVCAM DV DV DVCAM

"When using the mini DVCAM video equipment to carry out DV dubbing of a tape recorded in DV format, the tape produced will be in DVCAM format as follows:

- Audio recording mode will be unlock mode.

- The time code format will be partly maiadjusted. (There will be no effect on the recorded picture except in certain case.)

"If the tape is to be dubbed is DVCAM formatted tape as in 1), the tape produced will be in DVCAM format as follows:

- Audio recording mode will be unlock mode.

- The time code format will be partly maiadjusted.

"Depending on signal conditions of the source tape, you may not be able to edit the tape using the DV connectors.

"Audio recording mode of the edited tape is lock mode.

"Some mini DV video equipment may be able to play back a DVCAM-formatted tape. Even if the tape is played back, contents of the playback cannot be guaranteed.

"DV-formatted tapes recorded in SP mode only can be used as source tapes."

Depending on model of video equipment, you may not be able to edit.

Limitations on editing

Limitations on eating
You will find the following limitations when editing.

*Due to the difference of a track pitch, you cannot record or edit on DV-formatted tapes using min DVCAM videoc equipment.

*Depending on signal conditions, you may not be able to record or edit on DVCAM-formatted tapes.

In these cases, do the following:

 Edit using audio/video jacks.
 Dub a DV-formatted tape using audio/video jacks, then use the dubbed tape as a source tape.

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Usable cassettes and playback modes

Selecting cassette types

You can use the [DVCAM] mini DVCAM cassette only, You cannot use any other DVDV, [2] 8 mm, MIB His, (MB VHS, SWIS S-VHS, (MSDE VHSC, SWISD S-VHSC, IB Betamax or [2] ED Betamax cassette.

We recommend mini DVCAM cassette with cassette memory. There are two types of mini DVCAM cassettes: with cassette memory and without cassette memory. We recommend you to use the tape with cassette memory. The IC memory is mounted on this type of mini DVCAM cassette. This camcorder can read and write data such as dates of recording or titles, etc. to this memory. The functions using the cassette memory require successive signals recorded on the tape. If the tape has a blank portion in the beginning or between the recorded portions, a title may not be displayed properly or the search functions may not work properly. Not to make any blank portion on the tape, operate the following.

Press END SEARCH to go to the end of the recorded portion before you begin the next recording if you operate the following:

—you have ejected the cassette while recording.
—you have used the Edit Search function.

If there is a blank portion or discontinuous signal on your tape, re-record from the beginning to the end of the tape concerning above.

The same result may occur when you record using a digital video camera recorder without a cassette memory function on a tape recorded by one with the cassette memory function.

Tapes with cassette memory have CII (Cassette Memory) mark. Sony recommends that you use a tape having CIII mark to enjoy this camcorder fully.

When you play back

Copyright signal

When playing back

Using any other video camera recorder, you cannot record on a tape that has recorded a copyright control signals for copyright protection of software which is played back in this cancorder.

When recording
Using this amounder, you cannot record software that has recorded a copyright control signals for copyright protection of software. "COPY INHIBIT" appears on the LCD screen, in the viewfinder or on the TV screen if you try to record such software.

Audio mode
FS32K (12-bit) mode: The original sound can be recorded in stereo 1, and the new sound in
stereo 2 in 32 kHz. The balance between stereo 1 and stereo 2 can be adjusted by selecting
AUDIO MJK in the menu system during playback. Both sounds can be played back.
FS48K (16-bit) mode: A new sound cannot be recorded but the original sound can be
recorded in high quality. Moreover, it can also play back sound recorded in 32 kHz, 44.1 kHz
or 48 kHz. When playing back a tape recorded in the FS48K (16-bit) mode, 48K indicator
appears on the LCD screen or in the viewlinder.

settes and playback modes

Notes on the mini DVCAM cassette

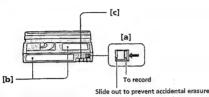
To prevent accidental erasure

out the protect tab on the cassette so that the red portion is visible. [a]

When affixing a label on the mini DVCAM cassette
Be sure to affix a label only on the locations as illustrated below so as not to cause malfunction of the camcorder. [b]

After using the mini DVCAM cassette

to the beginning, put the cassette in its case, and store it in an upright



Note on gold-plated connector

If the gold-plated connector of mini DVCAM cassettes is dirty or dusty, you may not operate the function using cassette memory. Clean up the gold-plated connector with cotton-swab, about every 10 times ejection of a cassette. [c]

Charging the vanadium-lithium battery in the camcorder

Your camcorder is supplied with a vanadium-lithium battery installed so as to retain the date and time, etc., regardless of the setting of the POWER switch. The vanadium-lithium battery is always charged as long as you are using the camcorder. The battery, however, will get discharged gradually if you do not use the camcorder. It will be completely discharged in about a year if you do not use the camcorder at all. Even if the vanadium-lithium battery is not charged, it will not affect the camcorder operation. To retain the date and time, etc., charge the battery if the battery is discharged. The following are charging methods:

Connect the camcorder to house current using the supplied AC power adaptor, and leave the camcorder with the POWER switch turned off for more than 24 hours.

Or install the fully charged battery pack in the camcorder, and leave the camcorder with the POWER switch turned off for more than 24 hours.

etting the date and time

To correct the date and time setting

Repeat steps 2 to 5.

If you do not set the date and time
"----" is recorded on the tape and "80.1.1" on the memory stick or PC card

The year indicator changes as follows:

1998 → 1999 → . . 2001 . . → 2029

Note on the time indicator

The internal clock of this camcorder operates on a 12-hour cycle (DSR-PD100) or on a 24-

- hour cycle (DSR-PD100P).

 12:00 AM stands for midnight.
- 12:00 PM stands for noon

Simple setting of clock by time difference

- You can easily set the clock for a local time by a time difference in the menu system. You can also reset the clock simply by setting the time difference to zero.

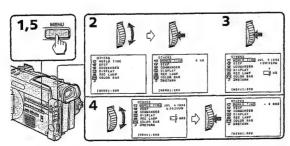
 (1) While the camcorder is in Standby mode, press MENU to display the menu.
- (1) While the camcorder is in stantaby moves, press sharks of our pays the means.

 (2) Turn the control dial to select Effig. then press the dial.

 (3) Turn the control dial to select WORLD TIME, then press the dial.

 (4) Turn the control dial to select time difference, and press the dial. The hour of clock changes in relation to a time difference which you set.

 (5) Press MENU to erase the menu display.



Note on WORLD TIME

If the clock is not set, WORLD TIME does not work.

Resetting the date and time

The date and time are set at the factory. Set the time according to the local time in your country. If you do not use the camcorder for about a year, the date and time settings may be released (bars may appear) because the variadium-lithium battery installed in the camcorder will have been discharged. In this case, first charge the variadium-lithium battery, then reset the date and time.

(1) Set the POWER witch to CAMERA.

(1) Set the POWER SWINCH OF CAMBEAN.

(2) Press MENU to display the menu.

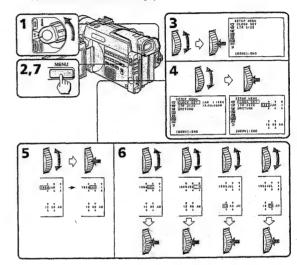
(3) Turn the control dial to select (a), then press the dial.

(4) Turn the control dial to select CLOCK SET, then press the dial.

(5) Turn the control dial to adjust the year, then press the dial.

(6) Set the month, day, hour and minutes by turning and pressing the control dial.

(7) Press MENU to erase the menu display.



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Tips for using the battery pack

This section shows you how you can get the most out of your battery pack.

Preparing the battery pack

Always carry additional batteries
Have sufficient battery pack power to do 2 to 3 times as much recording as you have

Battery life is shorter in a cold environment

Battery efficiency is decreased, and the battery will be used up more quickly, if you are recording in a cold environment.

To save battery power

Do not leave the camcorder in Standby mode when not recording to save the battery power.

A smooth transition between scenes can be made even if recording is stopped and started again. While you are positioning the subject, selecting an angle, or looking at the LCD screen or through the viewfinder, the lers moves automatically and the battery is used. The battery is also used when a tape is inserted or removed.

When to replace the battery pack

While you are using your camcorder, the remaining battery indicator on the LCD screen or in the viewfinder decreases gradually as battery power is used up. The remaining time in minutes also appears.

When the remaining battery indicator reaches the lowest point, the CI indicator appears and starts flashing on the LCD screen or in the viewfinder.

When the CI indicator on the LCD screen or in the viewfinder changes from slow flashing to rapid flashing while you are recording, set the POWER switch to OFF on the camcorder and replace the battery pack. Leave the tape in the camcorder to obtain a smooth transition between scenes after the battery pack has been replaced.

Notes on the rechargeable battery pack

Never leave the battery pack in temperatures above 60° C (140° F), such as in a car parked in the sun or under direct sunlight.

The battery pack heats up.

During charging or recording, the battery pack heats up. This is caused by energy that has
been generated and a chemical change that has occurred inside the battery pack. This is not
cause for concern, and is normal.

- Battery pack care

 Remove the battery pack from the camcorder after using it, and keep it in a cool place. When the battery pack is installed to the camcorder, a small amount of current flows to the camcorder even if the POWER switch is set to OFF. This shorters battery life.

 The battery pack is always discharging even when it is not in use after charging. Therefore, you should charge the battery pack right before using the camcorder.

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Tips for using the battery pack

The life of the battery pack

The life of time battery packs if the battery indicator flashes rapidly just after turning on the camcorder with a fully charged battery pack, the battery pack should be replaced with a new fully charged one

Charging temperature

You should charge batteries at temperatures from 10°C to 30°C (from 50°F to 86°F). Lower temperatures require a longer charging time.

Notes on the "InfoLITHIUM" Battery Pack

What is the "InfoLITHIUM" battery pack
The "InfoLITHIUM" battery pack is a lithium battery pack which can exchange data with
compatible video equipment about its battery consumption.
When you use this battery pack with video equipment having the maintain mark, the
video equipment will indicate the remaining battery time in minutes."
The indication may not be accurate depending on the condition and environment which
the equipment is used under.

The power consumption is displayed. The power consumption of the camcorder changes depending on its use, such as whether the LCD panel is used or not, how the autofocusing is working on or not. While checking the condition of the camcorder, the "InfoLITHIUM" battery pack measures the battery consumption and calculates the remaining battery power. If the condition changes drastically, the remaining battery indication may suddenly decrease or increase by more than 2 minutes.

more than 2 minutes. Even if 5 to 10 minutes is indicated as the battery remaining time on the LCD screen or in the viewfinder, the C2 indicator may also flash under some conditions.

To obtain more accurate remaining battery indication

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Maintenance information and precautions

Moisture condensation

If the camcorder is brought directly from a cold place to a warm place, moisture may condense inside the camcorder, on the surface of the tape, on the lens, on the head, or on the floppy disk. In this condition, the tape may stick to the head drum and be damaged or the camcorder may not operate correctly. To prevent possible damage under these circumstances, the camcorder is furnished with moisture sensors. Take the following precautions.

Inside the carncorder

If there is moisture inside the carncorder, the beep sounds and the ⊞ indicator flashes. Eject the cassette or the PC card adaptor immediately. If this happens, none of the function except cassette ejection will work. Open the cassette compartment, turn off the carncorder, and leave it about 1 hour. When ≜ indicator flashes at the same time, the cassette is inserted in the carncorder. Eject the cassette, turn off the carncorder, and leave also the cassette about 1 hour.

On the lens
If moisture condenses on the lens, no indicator appears, but the picture becomes dim. Turn
off the power and do not use the camcorder for about 1 hour.

How to prevent moisture condensation
When bringing the camcorder from a cold place to a warm place, put the camcorder in a plastic bag and allow it to adapt to room conditions over a period of time.

(1) Be sure to tightly seal the plastic bag containing the camcorder.

(2) Remove the bag when the air temperature inside it has reached the temperature surrounding it (after about 1 hour).

Video head cleaning

- To ensure normal recording and clear pictures, clean the video heads. The video heads may be dirty when:

 *mosaic-pattern noise appears on the playback picture

 *playback pictures at on ot move

 *playback pictures at ehardly visible

 *playback pictures at hardly visible

 *playback pictures at on ot appear

 *the O indicator and * 232 CLEANING CASSETTE" message appear one after another or the O indicator flashes on the LCD screen or in the viewfinder.











[b]

If [a] or [b] happens, clean the video heads with the Sony DVM12CL cleaning cassette (not supplied). Check the picture and if the above problem persists, repeat the cleaning. (Do not repeat cleaning more than 5 times in one session.)

Tips for using the battery pack

Why the remaining battery indication does not match the continuous recording time in the operating instruction. The recording time is affected by the environmental temperature and conditions. The recording time becomes very short in a cold environment. The continuous recording time in the operating instruction is measured under the condition of using a fully charged (or normal charged") battery pack in 25° C(77 °F). As the environmental temperature and condition are different when you actually use the camcorder, the remaining battery time is not same as the continuous recording time in the operating instruction.

1) Full charge: Charging for about 1 hour after the charge lamp of the AC power adaptor goes

Normal charge: Charging just until the charge lamp of the AC power adaptor goes off.

Notes on charging

A brand-new battery pack
A brand-new battery pack is not charged. Before using the battery pack, charge it completely.

Recharge the battery pack whenever you like
You do not have to discharge it before recharging. If you charged the battery pack fully but
you did not use it for a long time, it becomes discharged. Then recharge the battery pack
before use.

Notes on the terminals

If the terminals (metal parts on the back) are not clean, the battery charge duration

will be shortened

When the terminals are not clean or when the battery pack has not been used for a long time, repeatedly install and remove the battery pack a few times. This improves the contact condition. Also, wipe the +, - and C terminals with a soft cloth or paper.

Be sure to observe the following

- Keep the battery pack away from fire.
 Keep the battery pack dry.
 Do not open nor by to disassemble the battery pack.
 Do not expose the battery pack to any mechanical shock.

Maintenance information and precautions

Note
If the DVM12CL cleaning cassette (not supplied) is not available in your area, consult your

Precautions

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- Camcorder operation
 Operate the camcorder on 7.2 V (battery pack) or 8.4 V (AC power adaptor).
 Should any solid object or liquid get inside the casing, unplug the camcorder and checked by Sony dealer before operating it any further.
 Avoid rough handling or mechanical shock. Be particularly careful of the lens.
 Keep the POWER switch set to OFF when not using the camcorder.
 Do not wrap up the camcorder and operate it since hear may build up internally.
 Keep the camcorder away from strong magnetic fields or mechanical vibration.

On handling tapes

- Do not insert anything in the small holes on the cassette.
- Do not open the tape protect cover or touch the tape.
 Avoid touching or damaging the terminals. To remove dust, clean the terminals with a soft

- Camcorder care

 When the camcorder is not to be used for a long time, disconnect the power source and remove the tape. Periodically turn on the power, operate the camera and player sections and play back a tape for about 3 minutes.

 Clean the lens with a soft brush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.

 Clean the camcorder body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.

 Do not let sand get into the camcorder. When you use the camcorder on a sandy beach or in a dusty place, protect it from the sand or dust. Sand or dust may cause the unit to maifunction, and sometimes this malfunction cannot be repaired.

Maintenance information and precautions

- AC power adaptor
 Charging

 Use only an "InfoLITHIUM" type battery pack.

 Place the battery pack on a flat surface without vibration during charging.

 The battery pack will get hot during charging. This is normal.

- Others

 Unplug the unit from the wall outlet when not in use for a long time. To disconnect the power cord, pull it out by the plug. Never pull the cord itself.

 Do not operate the unit with a damaged cord or if the unit has been dropped or damaged.
 Do not bend the AC power cord forcibly, or put a heavy object on it. This will damage the cord and may cause a fire or an electrical shock.
 Be sure that nothing metallic comes into contact with the metal parts of the connecting plate. If this happens, a short may occur and the unit may be damaged.

 Always keep the metal contacts clean.
 Do not disassemble the unit.
 Do not apply mechanical shock or drop the unit.
 While the unit is in use, particularly during charging, keep it away from AM receivers and video equipment because it will disturb AM reception and video operation.
 The unit becomes warm while in use. This is normal.
 Do not place the unit in locations that are:
 Extremely hot or cold, Dusty or dirty, Very humid, Vibrating

- Note on dry batteries
 To avoid possible damage from battery leakage or corrosion, observe the following.

 Be sure to insert the batteries in the correct direction.

 Dry batteries are not rechargeable.

 Do not use a combination of new and old batteries.

 Do not use different types of batteries.

 The batteries slowly discharge while not in use.

 Do not use a battery that is leaking.

- If battery leakage occurred

 •Wipe off the liquid in the battery case carefully before replacing the batteries.

 •If you touch the liquid, wash it off with water.

 •If the liquid get into your eyes, wash your eyes with a lot of water and then consult a

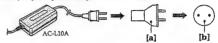
If any difficulty should arise, unplug the unit and contact your nearest Sony dealer.

Using your camcorder abroad

Each country or area has its own electric and TV color systems. Before using your camcorder abroad, check the following points.

Power sources

You can use your camcorder in any country or area with the supplied AC power adaptor within 100 V to 240 V AC, 50/60 Hz. Use a commercially available AC plug adaptor [a], if necessary, depending on the design of the wall outlet [b].



Difference in color systems

DSR-PD100 is an NTSC system-based camcorder. If you want to view the playback picture on a TV, it must be an NTSC system-based TV.
DSR-PD100P is a PAL system-based camcorder. If you want to view the playback picture on a TV, it must be a PAL system-based TV.
Check the following list.

NTSC system

Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica,
Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

PAL system

PAL system
Australia, Austria, Belgium, Czech Republic, China, Denmark, Finland, Germany, Great
Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal,
Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, etc.

PAL-M system

PAL-N system Argentina, Paraguay, Uruguay

SECAM system
Bulgaria, France, Guiana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Ukraine, etc.

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Trouble check

■ and
indicators flash and no function
except for cassette ejection works.

"CLOCK SET" appears when the camcorder is turned on.

The end search function does not work

If you run into any problem using the camcorder, use the following table to troubleshoot the problem. Should the difficulty persist, disconnect the power source and contact your Sony dealer or local authorized Sony service facility.

Camcorder

Power

Symptom	Cause and/or corrective actions			
The power cannot be turned on.	The battery pack is not installed. Install the battery pack. (p. 8) The battery is dead. Use a charged battery pack. (p. 9) The AC power adaptor is not connected to a wall outlet (mains). Connect the AC power adaptor to a wall outlet (mains (p. 27)			
The power goes off.	 While being operated in CAMERA mode, the camcorder has been in Standby mode for more than 5 minutes. Set the POWER switch to OFF, then to CAMERA. (p. 13) The battery is dead. Use a charged battery pack. (p. 9) 			
The battery pack is quickly discharged.	 The ambient temperature is too low. (p. 120) The battery pack has not been charged fully. Charge the battery pack again. (p. 9) The battery pack is completely dead, and cannot be recharged. Use another battery pack. (p. 26) 			
Operation				
Symptom	Cause and/or corrective actions			
START/STOP does not operate.	The tape is stuck to the drum. Fject the cassette. (p. 12) The tape has run out. Rewind the tape or use a new one. (p. 23) The POWER switch is not set to CAMERA. Set it to CAMERA. (p. 13) The tab on the cassette is out (red). Use a new tape or slide the tab. (p. 12)			
The cassette cannot be removed from the holder.	The AC power adaptor is not connected to a wall outlet (mains). The AC power adaptor to a wall outlet (mains).			

 The tape without cassette memory ejected after recording. Continued to the next page 127

The AC power adaptor is not connected to a wan outer (mains).

→ Connect the AC power adaptor to a wall outlet (mains).
(p. 27)

The battery is dead.

→ Use a charged battery pack or the AC power adaptor.
(p. 9, 27)

Moisture condensation has occurred.

Remove the cassette and leave the camcorder for at least 1 hour. (p. 123)

You did not make a new recording after reinserting the

Reset the date and time. (p. 118)

Trouble check

Symptom	Cause and/or corrective actions			
The end search function does not work correctly.	The tape has a blank portion in the middle.			
The tape does not move when a tape transport button is pressed.	 The POWER switch is not set to VTR. Set it to VTR. (p. 23) The tape has run out. Rewind the tape or use a new one. (p. 23) 			
No sound or only a low sound is heard when playing back a tape.	 The volume is turned to the minimum. → Open the LCD panel and press VOLUME +. (p. 23) AUDIO MIX is set to ST2 side in the menu system. → Adjust AUDIO MIX in the menu system. (p. 87) 			
The new sound added to the recorded tape is not heard.	 AUDIO MIX is set to STI side in the menu system. Adjust AUDIO MIX in the menu system. (p. 87) 			
The Steady Shot function does not work.	 STEADYSHOT is set to OFF in the menu system. → Set it to ON. (p. 51) 			
The autofocus function does not work.	Focus is set to the manual mode. Set it to autofocus. (p. 58) Shooting conditions are not suitable for autofocus. Set focus to manual mode to focus manually. (p. 58)			
The title is not displayed.	 TITLE DSPL is set to OFF in the menu system. → Set it to ON in the menu system. (p. 31) 			
The title is not recorded.	The tape has no cassette memory. Use a tape with cassette memory. (p. 63) The cassette memory is full. Erase another title. (p. 65) The tape is set to prevent accidental erasure. Slide the protect tab so that red portion is not visible. (p. 12) Nothing is recorded in that position on the tape. Superimpose the title to the recorded position. (p. 63)			
The cassette label is not recorded.	The tape has no cassette memory. Use a tape with cassette memory. (p. 58) The cassette memory is full. First some titles. (p. 55) The tape is set to prevent accidental erasure. Slide the protect tab so that red portion is not visible. (p. 12)			
Displaying the recorded date, date search function does not work.	The tape has no cassette memory. Use a tape with cassette memory. (p. 73) CM SEARCH is set to OFF in the menu system. Set it to ON. (p. 73)			

Trauble check

Operation				
Symptom	Cause and/or corrective actions			
The title search function does not work.	*The tape has no cassette memory. * Use a tape with cassette memory. (p. 75) * CM SEARCH is set to OFF in the menu system. * Set it to ON. (p. 75) * There is no title in the tape. * Suprimpose the titles. (p. 63)			
CIII indicator does not appear when using a tape with cassette memory.	 The gold-plated connector of the tape is dirty or dusty. → Clean the gold-plated connector. (p. 117) 			
The date search, title search, or end search does not work correctly.	 The tape has a blank portion between the recorded portions. (p. 116) 			
The click of the shutter does not sound.	BEEP is set to OFF in the menu system. Set it to MELODY or NORMAL. (P. 32)			
Picture				
Symptom	Cause and/or corrective actions			
The image on the viewfinder screen is not clear.	 The viewfinder lens is not adjusted. → Adjust the viewfinder lens. (p. 14) 			
A vertical band appears when a subject such as lights or a candle flame is shot against a dark background.	 The contrast between the subject and background is too high. The camcorder is not malfunctioning. Change locations. 			
The picture is "noisy" or does not appear.	 The video heads may be dirty. Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 123) 			
indicator flashes on the LCD screen or in the viewfinder.	 The video heads may be dirty. → Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 123) 			
The picture is too bright or too dark on the LCD screen.	 LCD BRIGHT is not adjusted properly. Press + or - to obtain the brightness you want. (p. 16, 23 			
A vertical band appears when shooting a very bright subject.	The camcorder is not malfunctioning.			
The picture does not appear on the LCD screen or in the viewfinder.	 Incorporated fluorescent tube is worn out. Please contact your nearest Sony dealer. 			
The picture does not appear in the viewfind	→ Close the LCD panel.			
A display such as "C: \(\sigma\) on the LCD screen or in the viewfinder.	 The self-diagnosis display function has been activated. Check the code and diagnosis the problem by referring to the code chart. (p. 132) 			

Continued to the next page 129

Trauble check

0	ti	ners	

Symptom	Cause and/or corrective actions • Disconnect the power cord (mains lead) of the AC power adaptor or remove the battery pack, then reconnect it in about 1 minute. Turn the power on. If the functions still do not work, open the LCD panel and press the RSST button beside the speaker using a sharp-pointed object. (If you press the RSST button, all the settings including the date and time return to the default.) (p. 136)		
No function works though the power is on.			
DV synchro-editing does not function.	 The input selector on the VCR is not set correctly. Set the selector to DV input position. If you use another DVCAM camcorder, set the power switch to The camcorder is connected to DVCAM equipment of other that Sony. Operate normal editing. Setting program on a blank portion of the tape is attempted. Set the program again on a recorded portion. 		

Picture					
Symptom	Cause and/or corrective actions				
The picture seems to be in flash motion.	 PROG. SCAN is set to ON in the menu system, or the POWER switch is set to MEMORY This is caused by progressive scanning (display with all the pixels) and is not a malfunction. 				
Remaining tape indicator is not displayed.	 The ETS REMAIN in the menu system is set to AUTO. If the remaining tape indicator is always displayed, set it to ON. 				
The memory card slot does not function.	 The battery is dead. Use a charged battery pack or the AC power adaptor. The PC card adaptor or PC card is not inserted correctly. Eject the PC card adaptor or PC card and insert it correctly The POWER switch is set to CAMERA. Set it to MEMORY or VTR. 				
Recording does not function.	The PC card adaptor or PC card has already been recorded to its full capacity. Brase unnecessary images and record again. The memory stick or PC card is not inserted. Insert the memory stick or PC card. Unusable PC card is inserted. Unserted. Format the memory stick or PC card. Format the memory stick or PC card. Format the memory stick or PC card. The protect switch on the memory stick is set to LOCK position. Silde the protect switch to write.				
The image cannot be deleted.	 The image is protected. Cancel the protect. 				

Others				
Symptom	Cause and /or corrective actions			
While editing using the i.LINK cable (DV connecting cable), recording picture cannot be monitored.	 Remove the i.LINK cable (DV connecting cable), and connect it again. 			
The camcorder becomes warm.	 If the power of the camcorder is on for a long time, it becomes warm, which is not malfunction. 			
The cumplied Pernote Commander does	. COMMANDER is set to OFF in the menu system.			

COMMANDER is set to OFF in the menu system.
Set it to ON.
Something is blocking the Infrared rays.
Remove the obstacle
The battery is not inserted with the correct polarity.
Insert the battery with the correct polarity (p. 140)
The batteries are dead.
Insert new ones. (p. 140)

130

Self-diagnosis function

The camcorder has a self-diagnosis display. This function displays the camcorder's condition with five digits (a combination of a letter and figures) on the LCD screen or in the viewfinder. If this occurs, check the following code chart. The five-digit display informs you of the camcorder's current condition. The last two digits (indicated by CID) will differ depending on the state of the camcorder.



Self-diagnosis display

•C:□□:□□

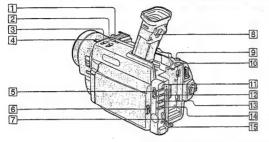
You can service the camcorder yourself.
•E:□□:□□

Contact your Sony dealer or local authorized Sony facility.

Five-digit display	Cause and/or corrective actions			
C:04:DD	 The battery other than "InfoLITHIUM" is used. → Use the "InfoLITHIUM" battery.(p. 121) 			
C:21:00	 Moisture condensation has occurred. Remove the cassette and leave the camcorder for at least 1 hour (p. 123) 			
C:22:00	 The video heads are dirty. → Clean the heads using the Sony DVM12CL cleaning cassette (not supplied). (p. 123) 			
C:31:00 C:32:00	 A serviceable situation not mentioned above has occurred. Remove the cassette and insert it again, then operate the camcorder. (p. 12) Disconnect the power cord (mains lead) of the AC power adaptor or remove the battery pack. After reconnecting the power source, operate the camcorder. 			
E:61:00 E:62:00	 A camcorder malfunction which you cannot service has occurred. Contact your Sony dealer or local authorized Sony service facility and inform them of the five digits. (example: E:61:10) 			

If you are unable to resolve the problem, contact your Sony dealer or local authorized Sony service facility.

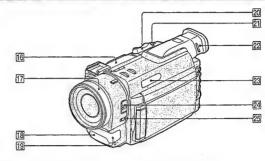




- 1 EDITSEARCH buttons (p. 22, 25)
- 2 BACK LIGHT button (p. 38)
- 3 FADER button (p. 36)
- 4 ND FILTER button (p. 49)
- [5] AUTO LOCK selector (p. 44)
- 6 OPEN switch (p. 23)
- 7 Control dial (p. 28)

- 8 Viewfinder lens adjustment lever (p. 14)
- 9 PHOTO button (p. 33)
- 10 | BATT (battery) RELEASE button (p. 11)
- SHUTTER SPEED button (p. 45)
- WHT BAL (white balance) button (p. 46)
- PROGRAM AE button (p. 55)
- 14 EXPOSURE button (p. 44)
- 15 Memory card slot (p. 88)

entifying the parts



- Tape transport buttons (p. 23)

 □ STOP (stop)

 ← REW (rewind)

 □ PLAY (playback)

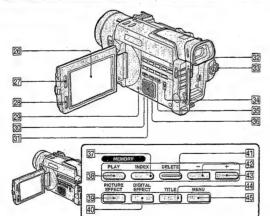
 ▶ FF (fast-forward)

 II PAUSE (pause)

 REC (record)
- 17 Focus ring (p. 58)
- 18 Remote sensor (p. 141)
- 19 Built-in microphone
- 20 Power zoom lever (p. 15)
- 21 TC RESET button (p. 14)
- 22 Viewfinder (p. 14)
- 23 Display window (p. 143)
- 24 FOCUS switch (p. 58)
- 25 PUSH AUTO button (p. 58)

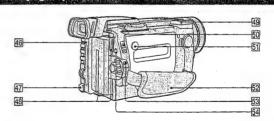
134

dentifying the parts



- 26 LCD Screen (p. 16)
- 27 LCD BRIGHT buttons (p. 16, 23)
- 28 VOLUME buttons (p. 23)
- 29 RESET button (p. 131)
- (p. 79)
- 31 Speaker
- 32 START/STOP button (p. 13)
- 33 POWER switch (p. 13, 23)
- 34 ZEBRA selector (p. 50)
- 35 END SEARCH button (p. 22, 25)

- 36 DISPLAY button (p. 23)
- 37 MEMORY INDEX button (p. 104)
- 38 MEMORY PLAY button (p. 103)
- 39 PICTURE EFFECT button (p. 41)
- 40 DIGITAL EFFECT button (p. 42)
- 41 MEMORY DELETE button (p. 107) 42 MEMORY - button (p. 103, 107)
- 43 MEMORY + button (p. 103, 107)
- 44 TITLE button (p. 63, 66)
- 45 MENU button (p. 28)



52 Grip strap (p. 20)

S Lock knob (p. 14)

- Access lamp (p. 90)
- 47 DC IN jack (p. 9)
- 48 Hooks for shoulder strap (p. 141)
- 19 Intelligent accessory shoe
- 50 EJECT switch (p. 12)
- 51 PUSH button (p. 12)

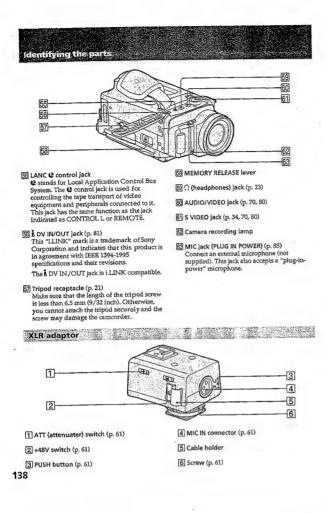
Intelligent Accessory Shoe

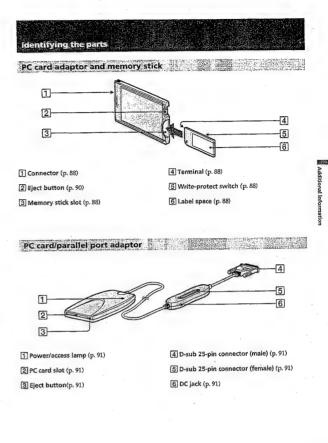
Note on the intelligent accessory shoe

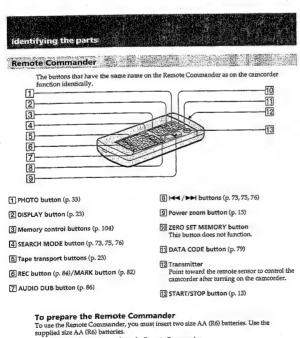
Supplies power to optional accessories such as a video light or microphone. The intelligent accessory shoe is linked to the POWER switch, allowing you to turn on and off the power supplied by the shoe. Refer to the operating instruction of the accessory for further information. To connect an accessory, press down and push it to the end, and then tighten the screw. To remove an accessory, loosen the screw, and then press down and pull out the accessory.



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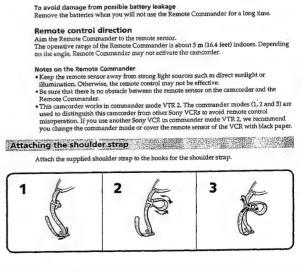






(1) Remove the battery cover from the Remote Commander. (2) Insert both of the size AA (R6) batteries with correct polarity (3) Put the battery cover back onto the Remote Commander

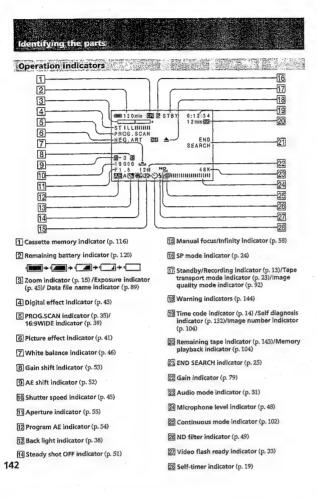
3

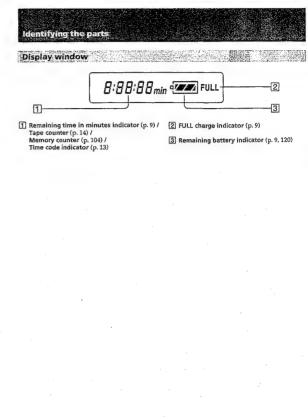


Note on battery life
The batteries for the Remote Commander last about 6 months under normal operation.
When the batteries become weak or dead, the Remote Commander does not work.

Identifying the parts









If indicators flash on the LCD screen or in the viewfinder or warning messages appear on the screen, check the following: P: You can hear the beep sound when BEEP is set to MELODY or NORMAL in the menu system.

2 1 3 11 Omic ※ ※※ -滅-4 6 5 11 PP. 77 -滅-※※ 黨黨 9 7 8 -C:21:10-CLOCK SET CLEANS 坎

The battery is weak or dead.
 Slow flashing: The battery is weak.
 Fast flashing: The battery is dead.
 Depending on conditions, the □ indicator may flash, even if there are 5 to 10 minutes remaining.

2 The tape is near the end. The flashing is slow.

The tape has run out.
The flashing becomes rapid.

4 No tape has been inserted.

[5] The tab on the tape is out (red).

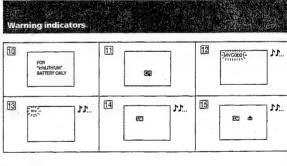
6 Moisture condensation has occurred. (p. 123)

7 The video heads may be contaminated. (p. 123)

8 The clock is not set. When this message appears though you set the date and time, the vanadium-lithium battery is discharged. Charge the vanadium lithium battery. (p. 117)

Some other trouble has occurred.

Use the self-diagnosis function (p. 132). If the display does not disappear, contact your Sony dealer or local authorized Sony service



10 The battery is not the "InfoLITHIUM" type.

11 The tape has no cassette memory. (p. 5)

12 The file cannot be read properly.

13 The image data file is protected. The flashing is slow.

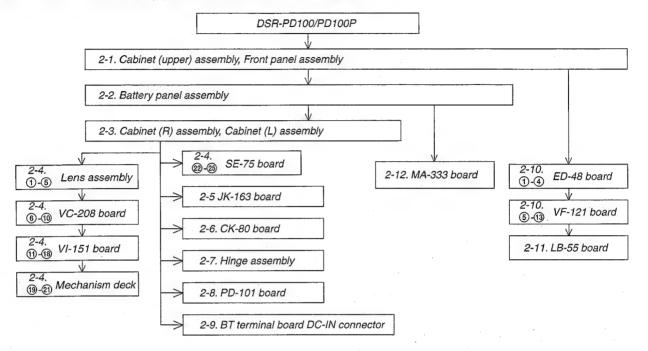
14 The tape has no memory left or cannot use

15 The protect tab is set to prevent accidental erasure.



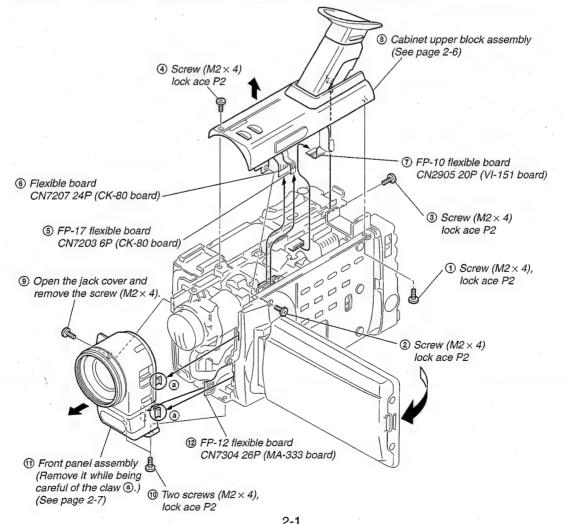
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure as shown in the flow chart below.

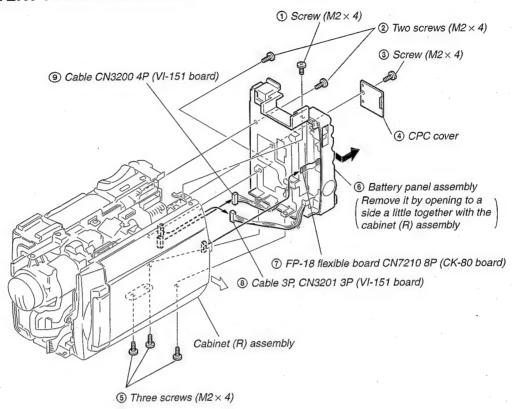


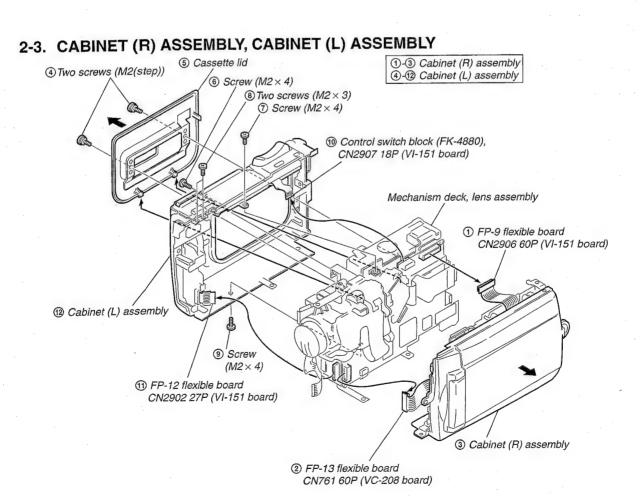
NOTE: Follow the disassembly procedure in the numerical order given.

2-1. CABINET (UPPER) ASSEMBLY, FRONT PANEL ASSEMBLY

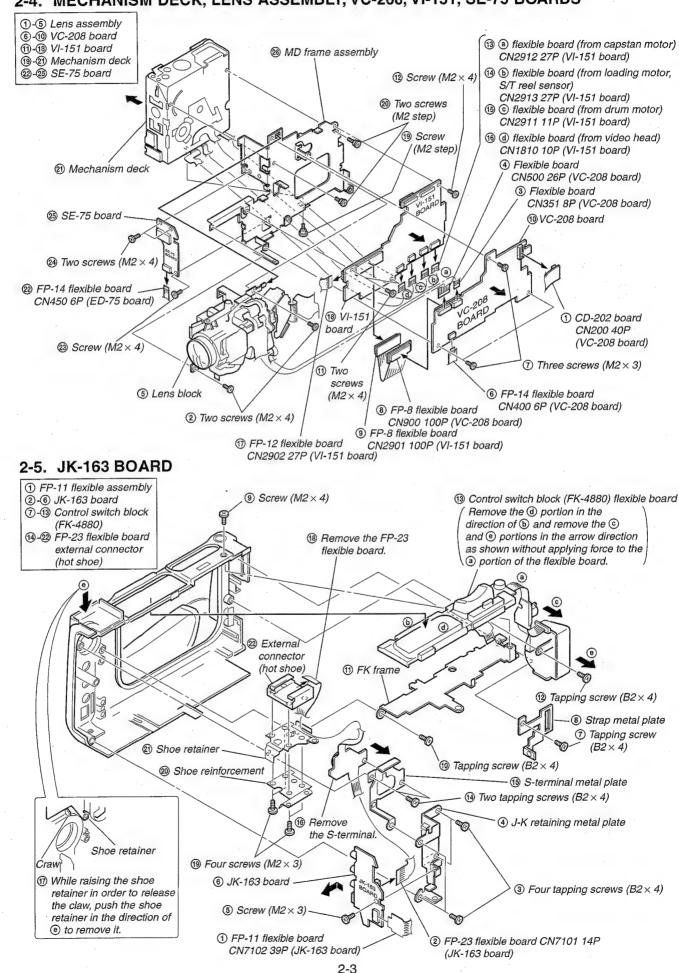


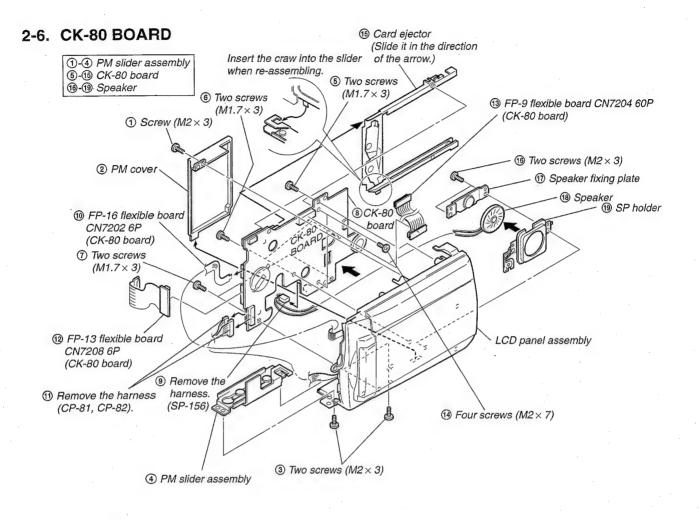
2-2. BATTERY PANEL ASSEMBLY



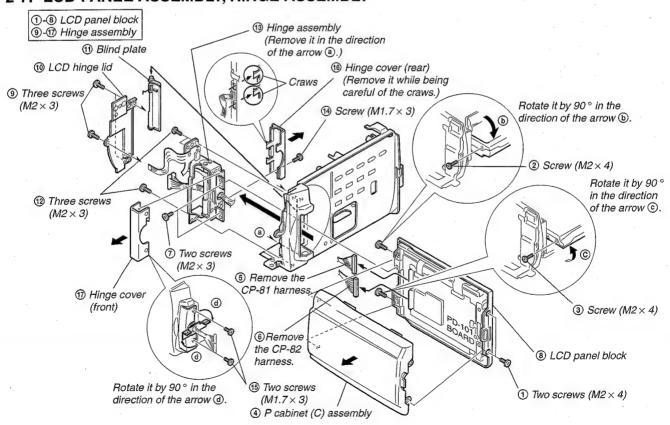


2-4. MECHANISM DECK, LENS ASSEMBLY, VC-208, VI-151, SE-75 BOARDS

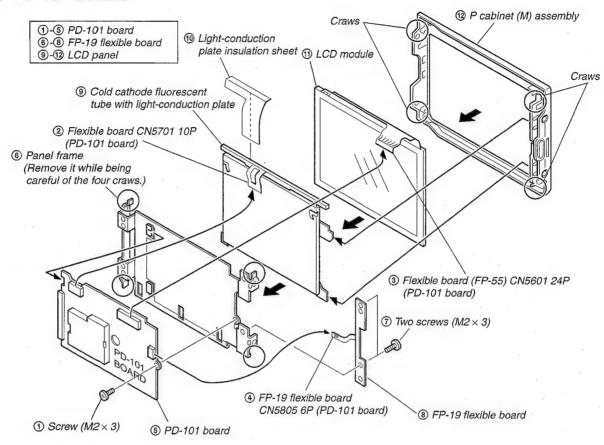




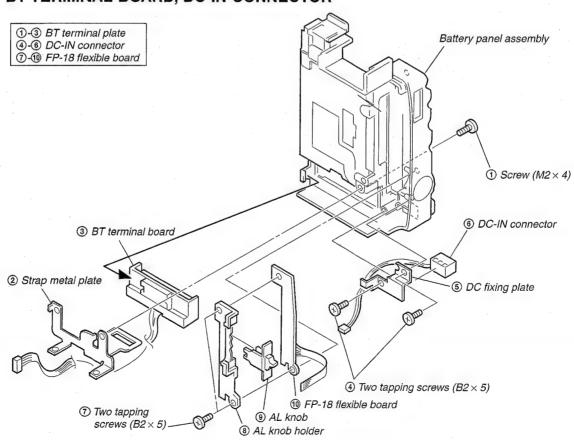
2-7. LCD PANEL ASSEMBLY, HINGE ASSEMBLY

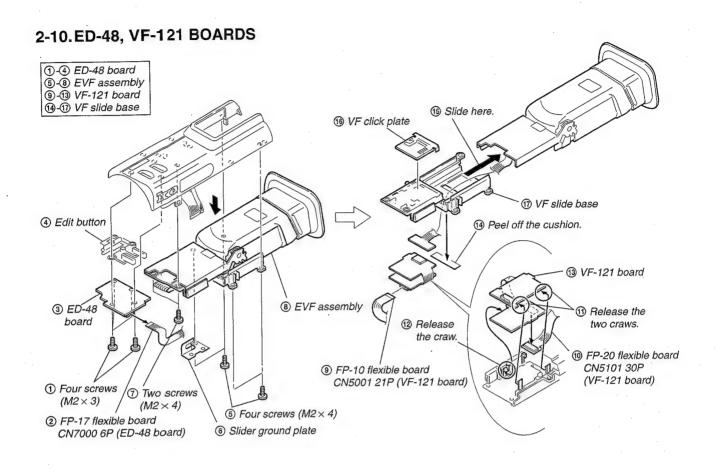


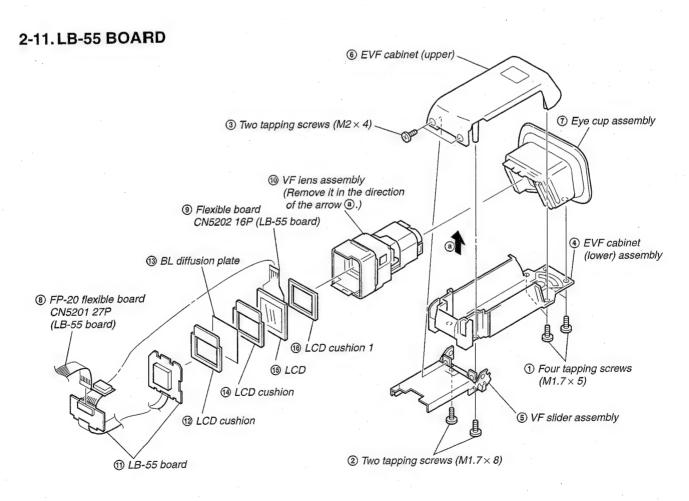
2-8. PD-101 BOARD



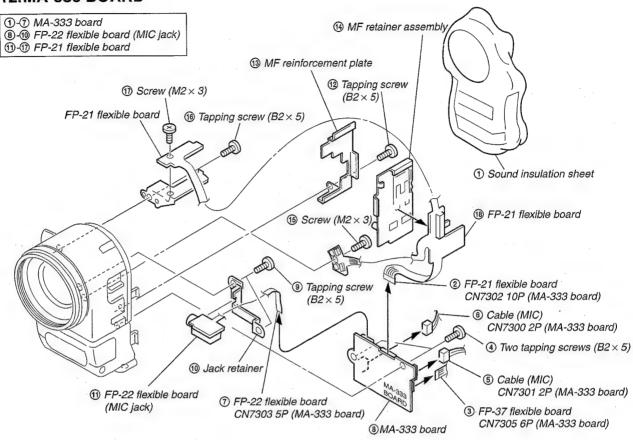
2-9. BT TERMINAL BOARD, DC-IN CONNECTOR



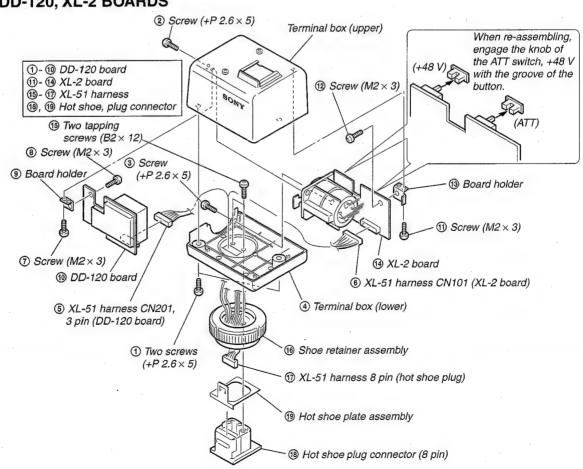




2-12.MA-333 BOARD

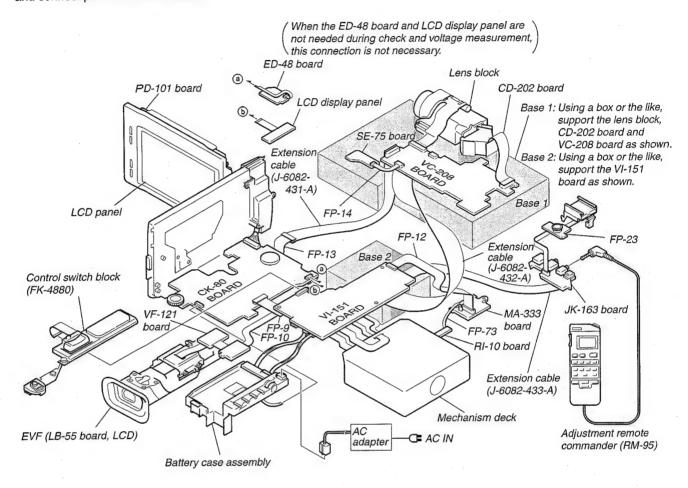


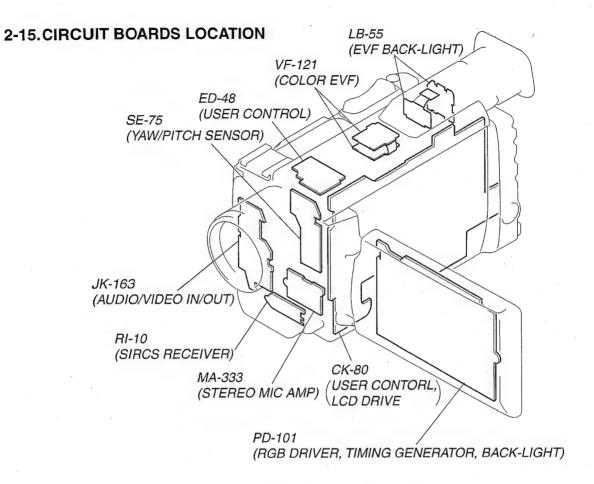
2-13.DD-120, XL-2 BOARDS

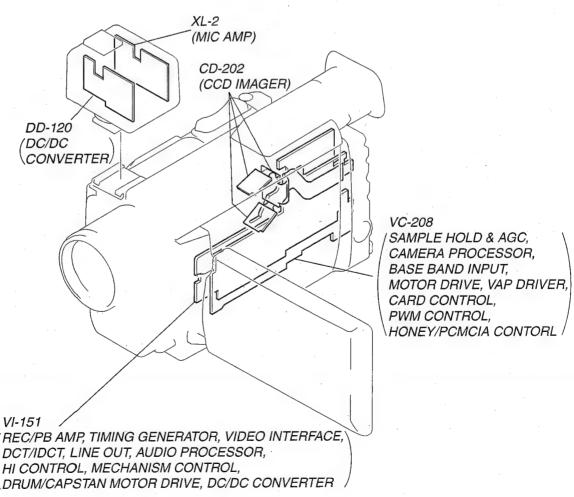


2-14. SERVICE POSITION (Mainly for check and voltage measurement)

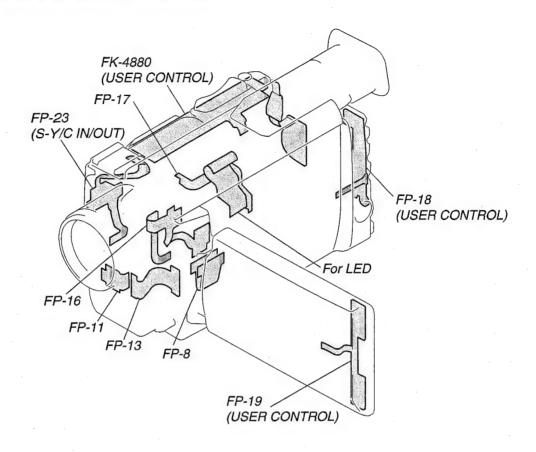
Firstly, remove the following parts referring to DISASSEMBLY (sections 2-1 to 2-6, 2-10 and 2-12), and connect parts as shown below.

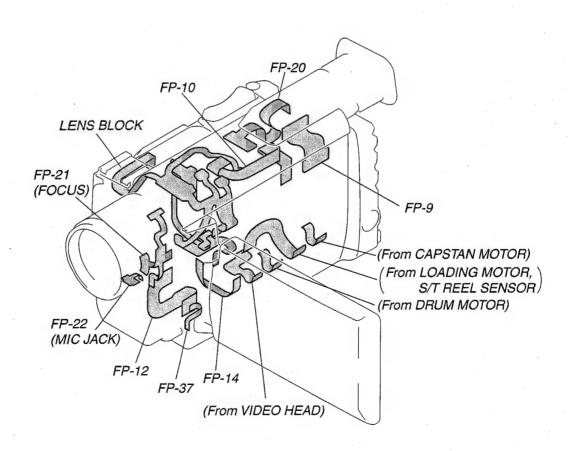




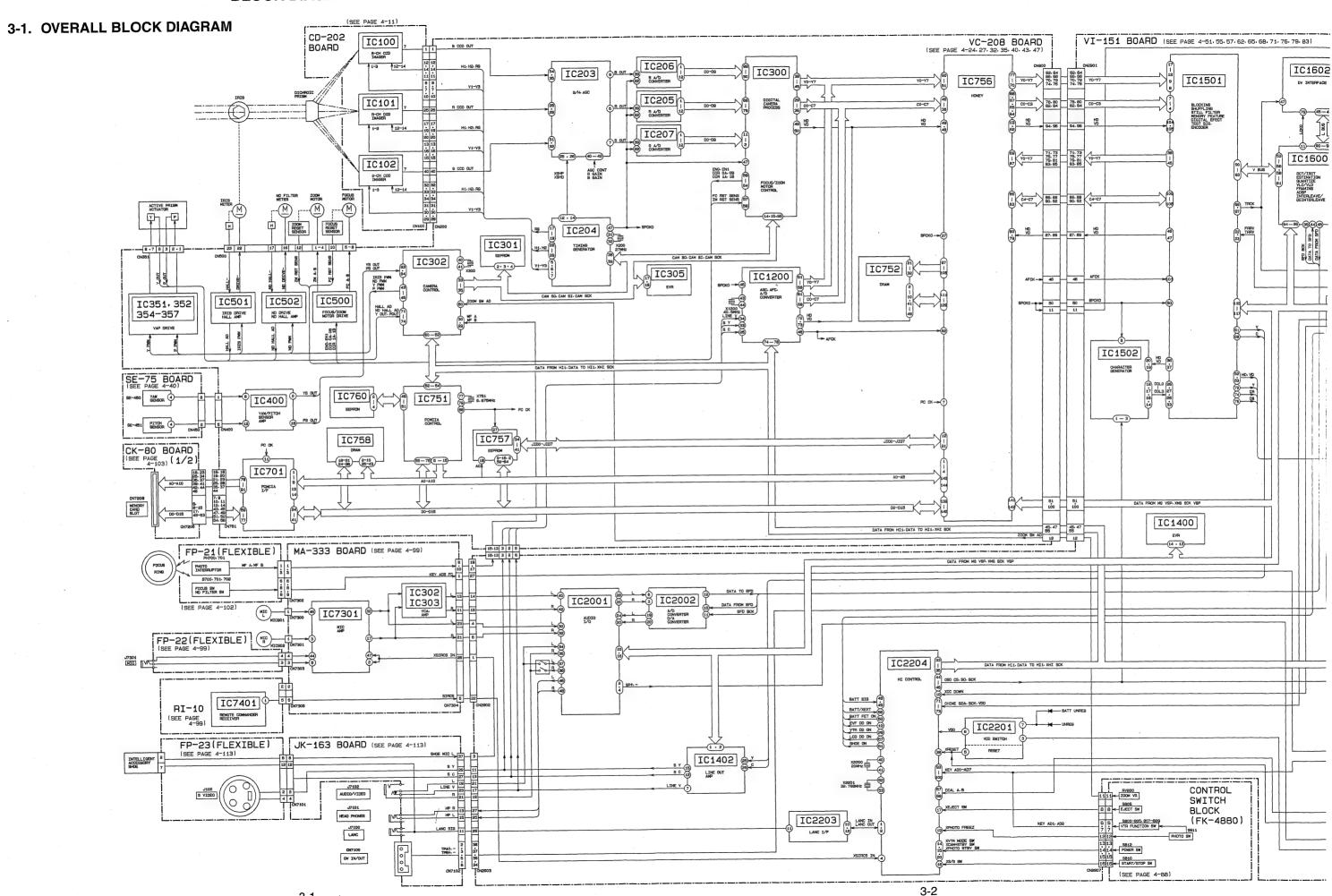


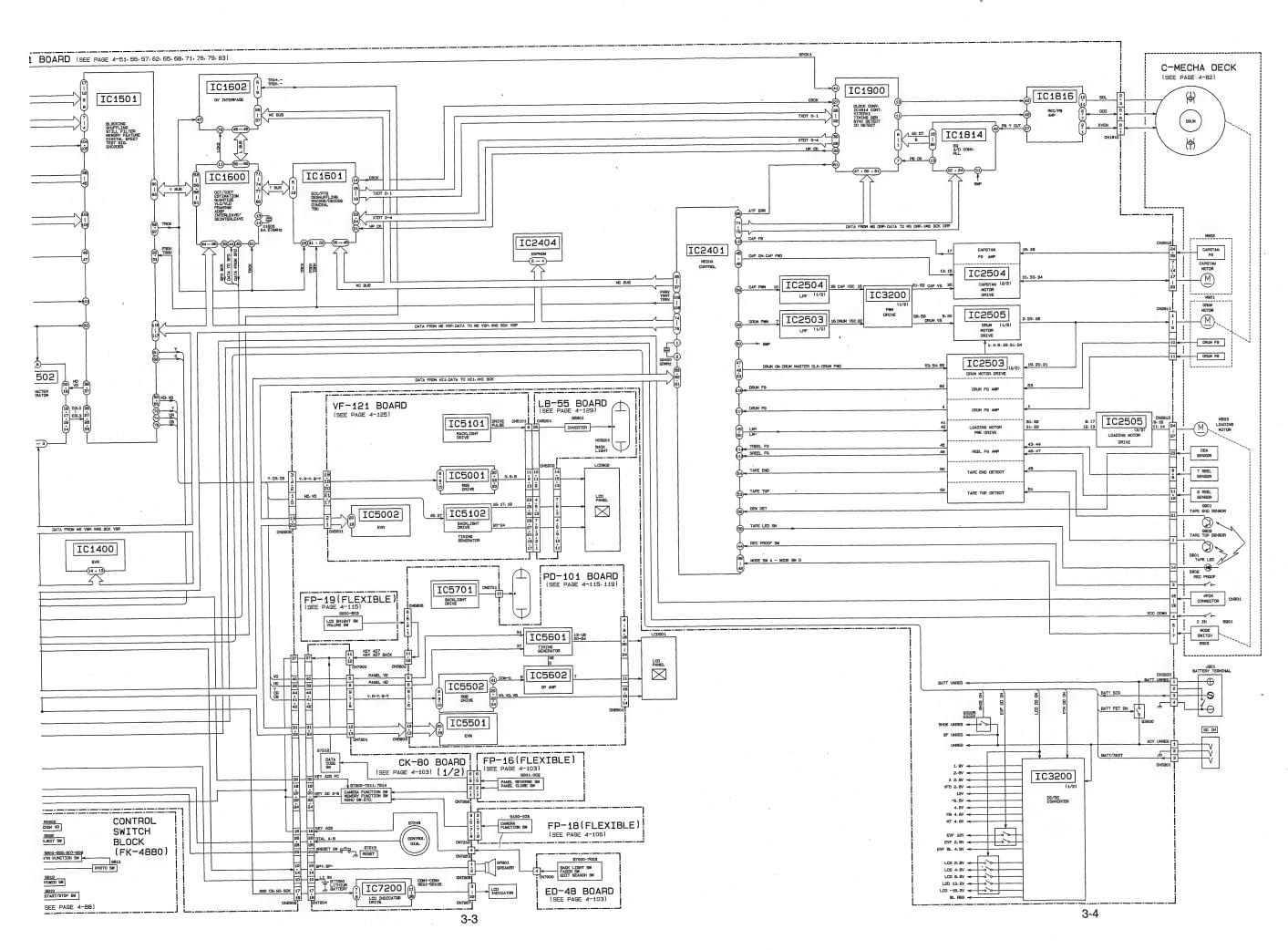
2-16.FLEXIBLE BOARDS LOCATION



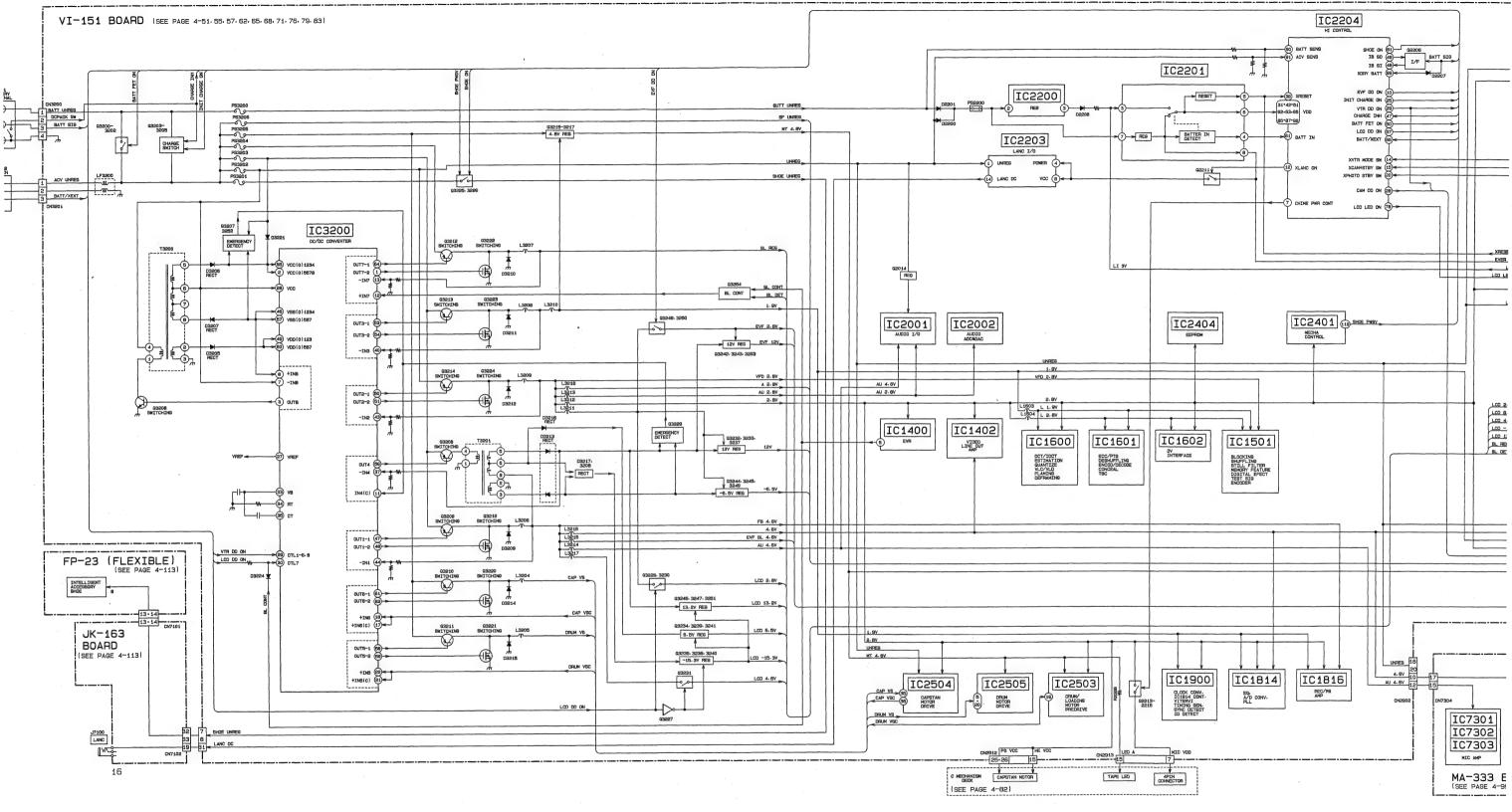


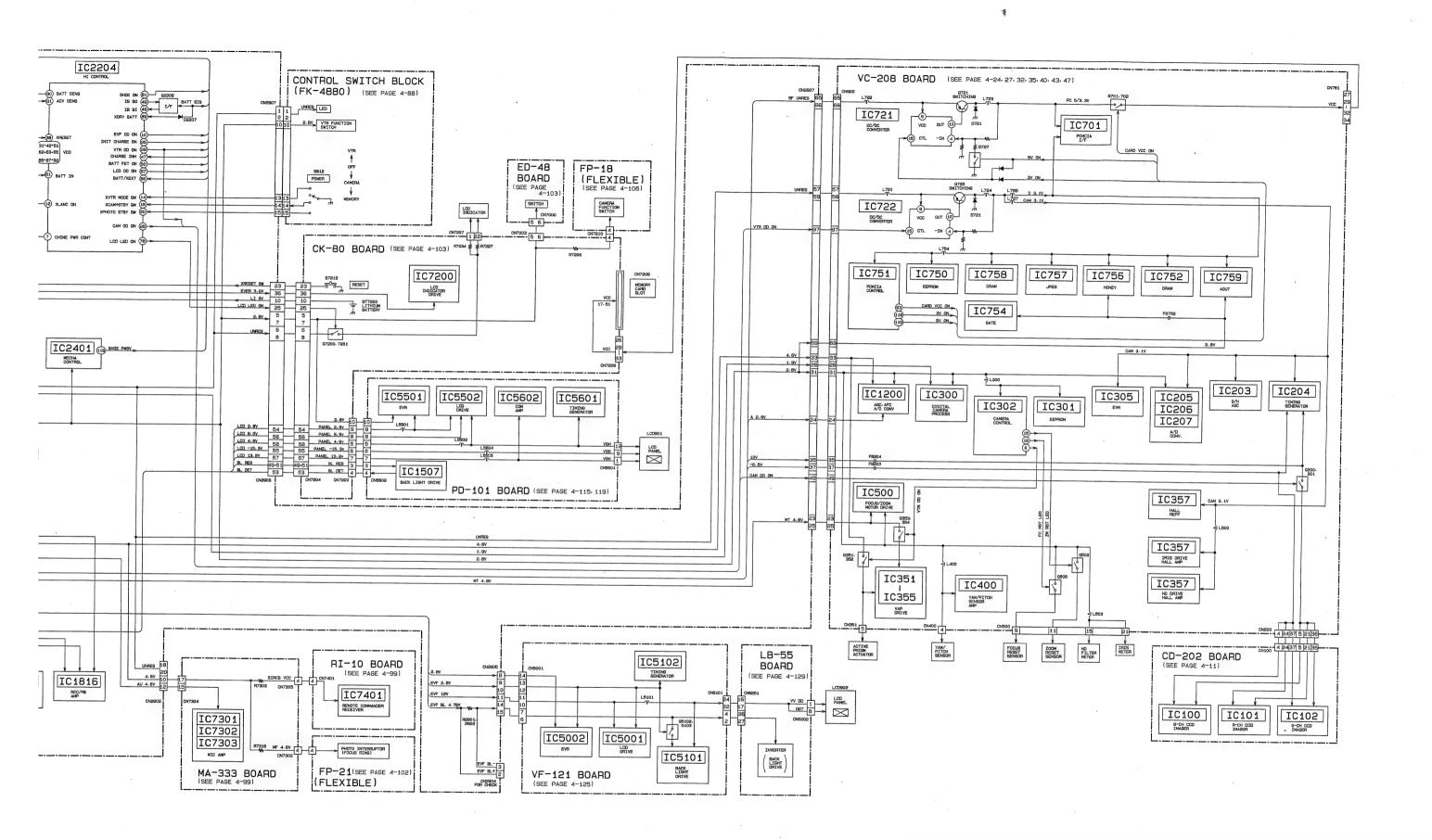
SECTION 3
BLOCK DIAGRAMS



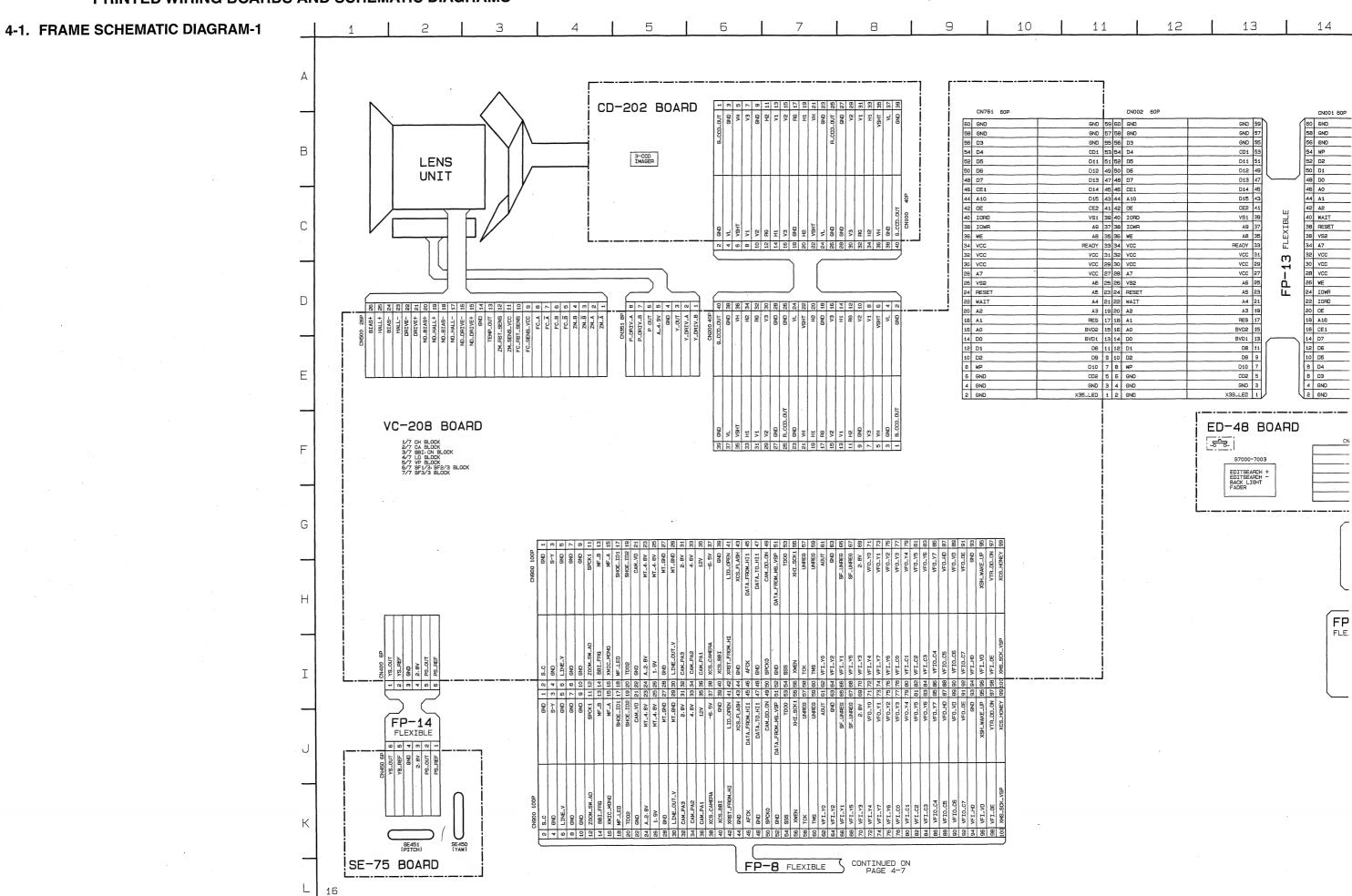


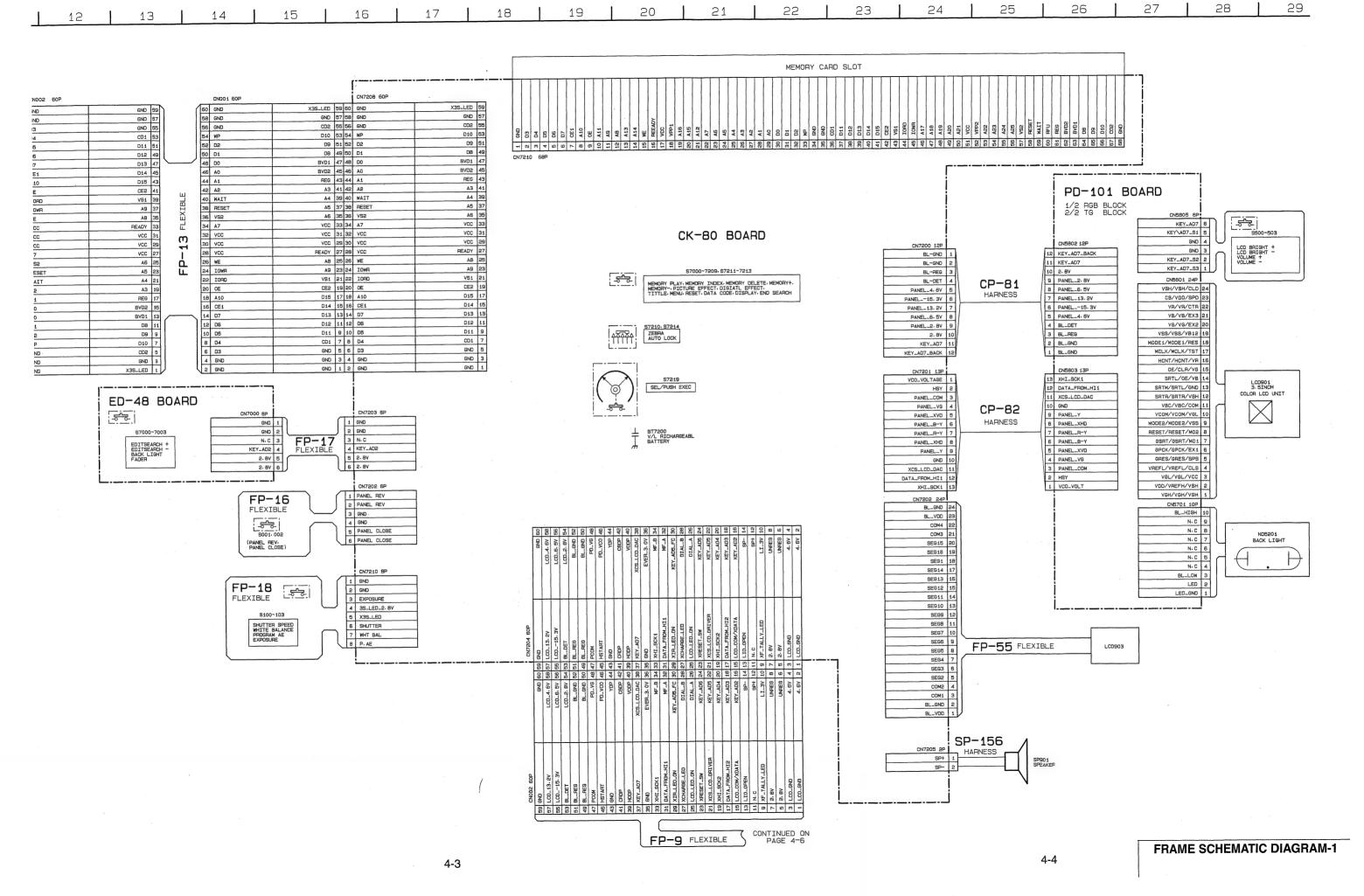
2. POWER BLOCK DIAGRAM





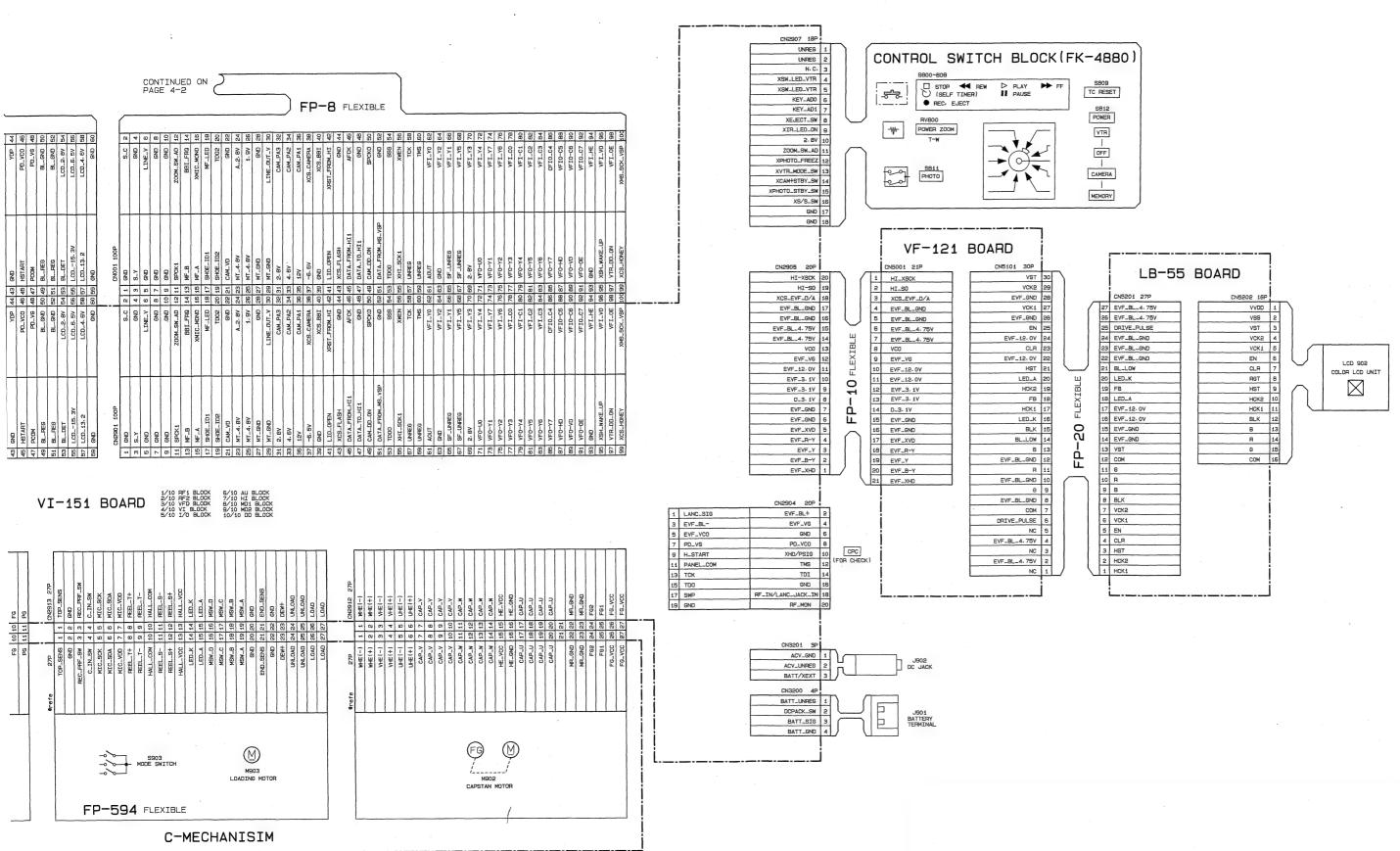
4-1





8 9 10 11 12 13 14 **|** 6 2 AME SCHEMATIC DIAGRAM-2 Α JK-163 BOARD CN7101 14P CN2903 39P GND 39 TPA+ 38 1 GND 2 S_Y GND CONTINUED ON PAGE 4-2 CONTINUED ON PAGE 4-3 TPA+ CN7402 BP В 3 XS_JACK_IN TPA- 37 TPA-SHOE_GND 8 GND 36 TPB+ 35 GND INTELLIGENT ACCESSORY SHOE SHOE_MIC_L 4 S_C FP-9 FLEXIBLE 5 GND MIC_GND 6 FP-23 S1 VIDEO SHOE_MIC_R 5 6 SHOE GND TPB- 34 6 TPB- $^{\prime}$ 0 0 $^{\prime}$ SHOE_ID2 4 7 SHOE_GND GND 33 7 GND GND 32 SHOE_ID1 3 8 SHOE_MIC_L LANC_DC 31 9 LANC_DC 9 MIC GND LAND_SIG 2 10 SHOE_ID2 LANC_JACK_IN 30 10 LANC_JACK_IN С LANC_SIG 29 GND 28 HP_R 27 11 SHOE_ID1 1 LANC_SIG 12 LANC_SIG 13 SHOE_UNREG 13 HP_B GND 25 HP_L 25 GND 24 14 SHOE_UNREG 14 GND © | CONNECTOR 15 HP_L 16 GND CN7100 4P HP_JACK_IN 23 17 HP_JACK_IN 4 TPA 3 NTPA 18 GND GND 2 XL-51 HAI SHOE UNREG LANC SIG SHOE ID1 SHOE ID2 SHOE MIC R MIC GND SHOE MIC B SHOE MIC B SHOE MIC B DV IN/OUT D AU_LINE_I/O_L AU_LINE_I/O_L 21 FP-11 GND 20 20 GND NTPB AU_LINE_I/O_R 19 21 AU_LINE_I/O_R GND 18 22 GND
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 23 LINE_V DD-120 LANC **N**▼ GND 16 24 GND 25 V_JACK_IN V_JACK_IN 15 **BOARD** GND 14 Ε S_C 13 27 S_C 28 GND GND 12 (HEADPHONES) 29 S_Y 30 GND S_Y 11 3 DD GND GND 10 CN201 XS_JACK_IN 9 31 XS_JACK_IN 32 SHOE_UNREG SHOE_UNREG 8 33 SHOE_UNREG SHOE_UNREG 7 SHOE_ID1 E 34 SHOE_ID1 F AUDIO/VIDEO SHOE_ID2 5 35 SHOE_ID2 36 GND 37 SHOE_MIC_L GND 4 SHOE_MIC_L 3 GND 2 3B GND GND 1 G MA-333 BOARD VI-151 BOARD SHOE UNRE SHOE ID1 MIC GND SHOE MIC L SHOE GND DD GND +46V 27P CN2902 CN7305 6P CN7401 6P 27 KEY_AD5_FC 26 GND IR_UNREG 1 IR_UNREG SHOE_MIC_L XIR_EM 2 XIR_EM GND 25 25 24 GND 23 XMIC_MONO 22 XSIRCS_IN RI-10 FP-37 8 7 9 5 4 6 7 -GND MIC_VCA 24 SIRCS_VCC 4 SIRCS_VCC BOARD XSIRCS_IN 5 XSIRCS_IN Н ZOOM_MIC_CONT 22 MIC_R 21 21 MF_LED XL-2 BOARD CN7302 10P GND 20 20 UNREG 10 GND 9 FC_AUTO 19 MF_B IR_EM 18 18 UNREG FP-21 FLEXIBLE 17 MF_A 16 MIC_VCA_R B FC_INFINITY 4. 6v 17 IR_DRV 16 7 GND 4 0 5 4 5 6 7 8 5 FOCUS MANUAL AU_4. 6V 15 6 ND_FILTER 15 EXT_MIC_DET Ι 5 MF_LED INFINITY 4 MF_4.6V MIC_VCA_L 13 XF_TALLY_LED 3 MF_B EXT_MIC_DET 4 AU_4-6V PUSH AUTO Ġ. IR_DAV 2 GND MIC_VCA_R 1 MF_A 10 S702 ND FILTER 10 4. 6v UNREG IR_EM CN7300 2P MF_B GND 1 INT_MIC_L MIC 901 L MIC UNREG 7 2 GND 7 GND MF_LED 6 MIC_R CN7301 2P 5 ZOOM_MIC_CONT XSIRCS_IN $(\underline{\mathbb{R}}$ CH (VIDEO HEAD) FG (M)1 INT_MIC_R 4 MIC_L 3 MIC_VCA MIC 902 A MIC XMIC_MONO 4 2 GND GND 3 2 GND 1 SHOE_MIC_L CN7303 5P KEY_AD5_FC 1 1 EXT_MIC_GND FP-22 TV EXT_MIC_GND FP-594 FLEXIBLE FLEXIBLE A. 3 EXT_MIC_R К EXT_MIC_L MIC (PLUG IN POWER) EXT_MIC_SW C-MECHANIS

. 29

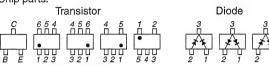


4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR WIRING BOARDS AND SCHEMATIC DIAGRAMS (In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

- Pattern from the side which enables seeing.
 (The other layers' patterns are not indicated.)
- Through hole is omitted.
- · Circled numbers refer to waveforms.
- There are few cases that the part printed on diagram isn't mounted in this model.
- · Chip parts.



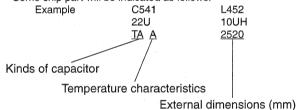
(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : $\mu \mu F$. 50V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10W unless otherwise noted.
- $k\Omega=1000\Omega$, $M\Omega=1000k\Omega$.
- · Caution when replacing chip parts.

New parts must be attached after removal of chip.

Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.

Some chip part will be indicated as follows.



 Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.

In such cases, the unused circuits may be indicated.

- Parts with ★ differ according to the model/destination.
- Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name

XEDIT → EDIT PB/XREC → PB/REC

- - : non flammable resistor
- + : fusible resistor • panel designation
- . parier design
- : B+ Line *
- --- : B- Line *
- ➡ : IN/OUT direction of (+,-) B LINE. *
- adjustment for repair. *
- Circled numbers refer to waveforms. *
- * Indicated by the color red.

Note:

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

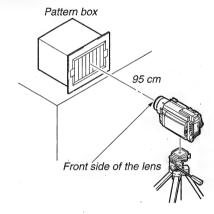
Note:

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.*
- (VOM of DC 10 MW input impedance is used.).
- Voltage values change depending upon input impedance of VOM used.)
- 1. Connection



Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

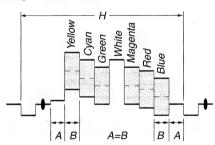


Fig. a (Video output terminal output waveform)

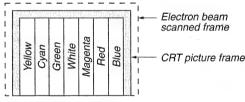


Fig.b (Picture on monitor TV)

- 3. The LINE REC waveform shows the waveform when the color for signal (video signal) is input from a color bar pattern.
- The LINE OUT waveform shows the waveform when the signals are connected to the S-VIDEO and VIDEO/AUDIO jacks but not to other jacks.

When indicating parts by reference number, pleas include the board name.

CD-202 (CCD IMAGER) PRINTED WIRING BOARD — Ref. No. CD-202 Board; 10,000 Series — C100 C101 C102 C103 C104 C105 C106 C107 C108 C109 C111 C112 C113 C114 C115 C116 C117 C118 C119 C119 C120 CD-202 BOARD (SIDE B) CD-202 BOARD (SIDE A) 000000 F 00 IC100 (B) Ε D C 11 1-670-994-1-670-994-000000 (G) A 10 3

CD-202 BOARD

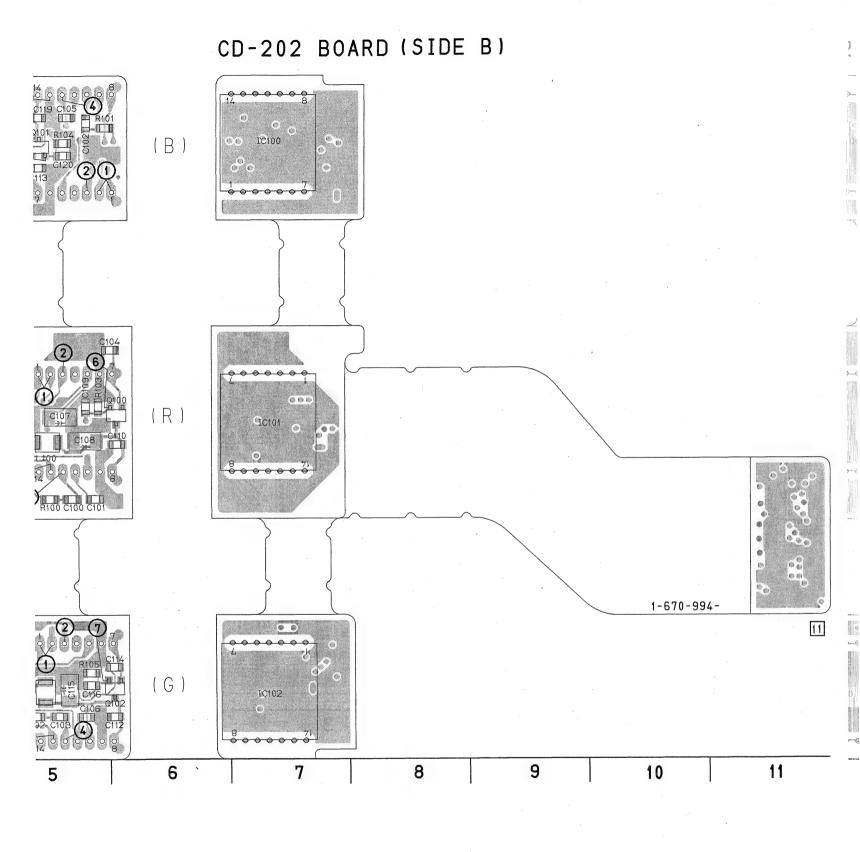
IC100 IC101 IC102 L100 L101 L102 Q100 Q101 Q102 R100 R101 R102 R103 R104 R105

For printed wiring
• This board is six-laterns of layers two the diagram.

Chip parts

Transistor

There are few ca diagram isn't mc



CD-202 BOARD

C100 C-5 CN100 B-1
C101 C-5
C102 F-5 IC100 F-7
C103 A-5 IC101 C-7
C104 D-5 IC102 A-7
C105 F-5
C106 A-5 L100 C-5
C107 C-5 L101 A-5
C108 C-5 L102 E-5
C109 C-5
C110 C-6 Q100 C-6
C111 A-5 Q101 F-5
C112 A-6 Q102 A-6
C113 E-5
C114 A-6 R100 C-5
C115 A-5 R101 F-5
C116 A-5 R101 F-5
C116 A-5 R101 F-5
C117 F-5 R103 C-5
C118 F-5 R104 F-5
C119 F-5
C119 F-5
C119 F-5
C120 E-5

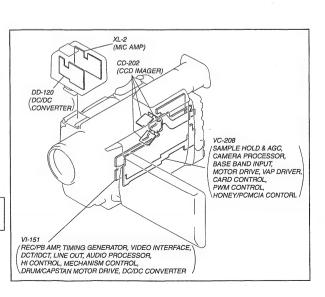
For printed wiring boards

 This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

Chip parts

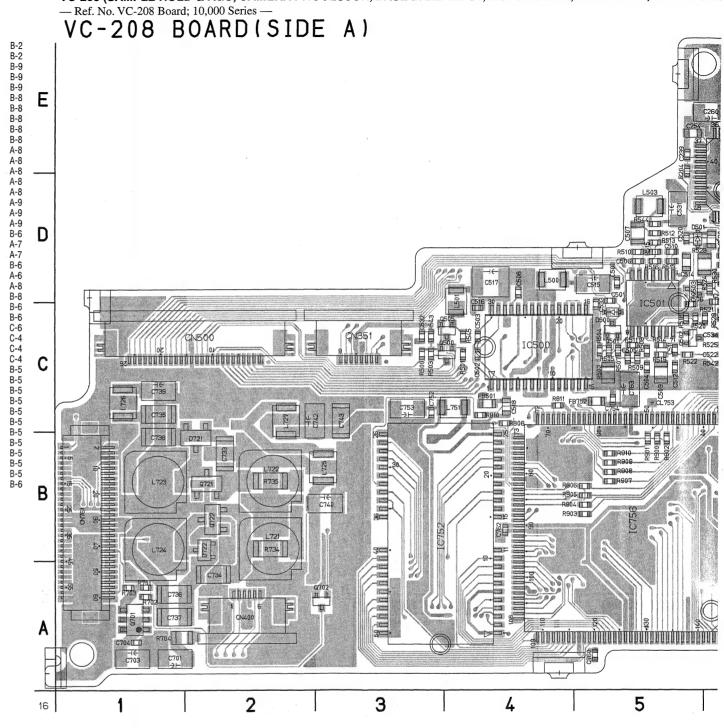
Transistor

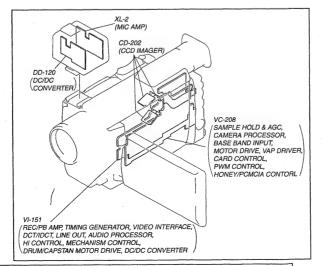
There are few cases that the part printed on this diagram isn't mounted in this model.



VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CON1

VC-208 BOARD (SIDE A) R734 B-2 R735 B-2 R765 B-9 R766 B-9 R767 B-8 R769 B-8 R770 B-8 R771 B-8 R773 A-8 R774 A-8 R777 A-8 R776 A-8 R777 A-9 R778 A-9 R788 B-6 R789 A-7 R790 A-7 R791 B-6 R802 A-6 R803 B-6 R801 B-8 R802 B-6 R803 B-6 R801 B-5 R902 B-5 R903 B-5 R904 B-5 R905 B-5 R907 B-5 R908 B-5 R909 B-5 R909 B-5 R909 B-5 </tr IC205 IC206 IC207 IC300 IC500 IC501 IC502 IC752 IC756 IC757 IC758 D-5 3 C-5 6 A-1 A-1 B-2 C-3 A-1 B-2 C-3 C-5 A-4 A-1 B-2 C-3 C-5 A-4 A-5 C-5 A-8 C-5 A-8 A-7 D-8 D-7 D-6 C-7 C-4 C-5 C-6 B-3 B-5 B-6 B-8 L201 L500 L501 L503 L721 L722 L723 L723 L724 L725 L726 L727 L751 L752 E-6 D-4 C-4 D-5 B-2 B-1 C-2 B-1 C-2 C-4 A-8 Q500 Q501 Q502 Q503 Q504 Q505 Q701 Q702 Q721 Q722 C-4 C-5 C-5 D-5 C-6 C-4 A-1 A-3 B-2 B-2 CN200 E-8 CN351 C-3 CN400 A-2 CN500 C-2 CN761 B-1 D500 D501 D721 D722 D-5 B-2 B-2 R201 R204 R205 R325 R326 R337 R338 R500 R501 D-7 D-5 D-6 B-8 B-8 C-6 C-6 C-3 C-4 FB202 D-7 FB300 C-8 FB301 D-6 FB501 C-4 FB752 C-5 FB754 A-7





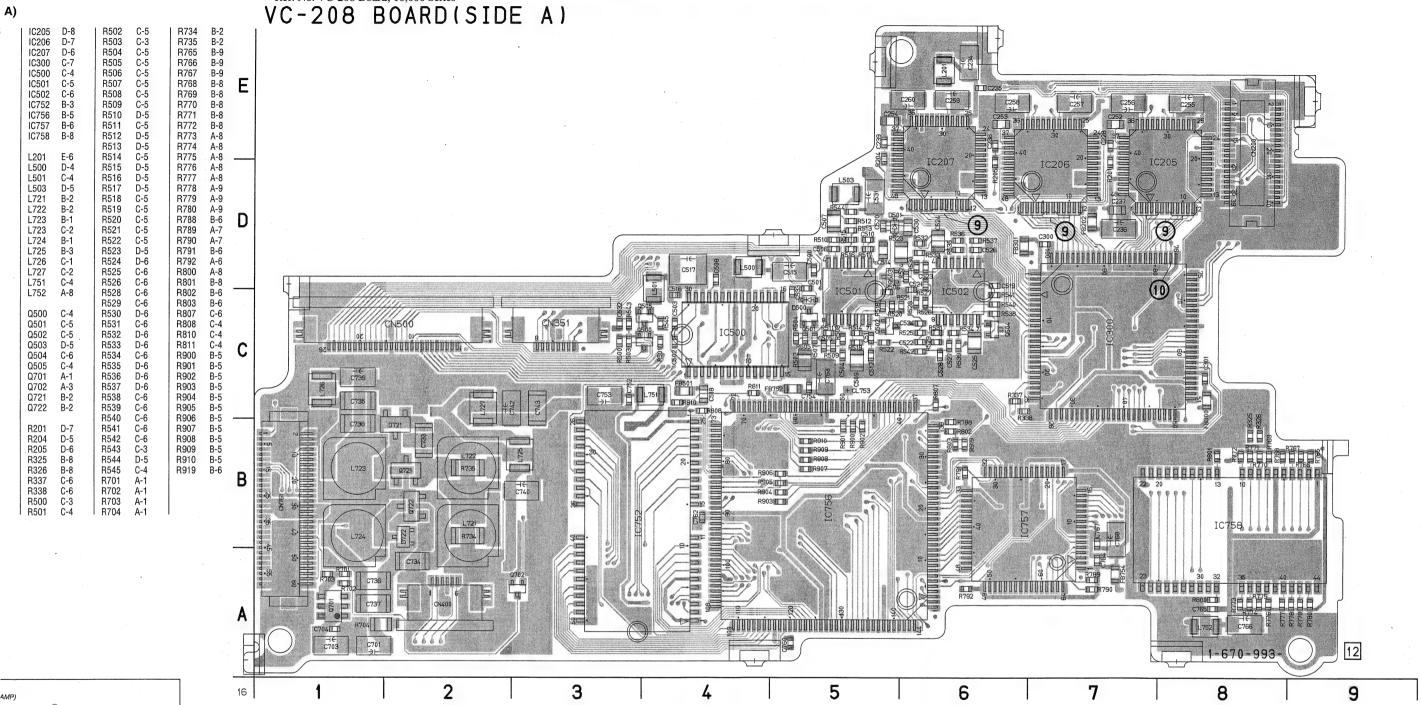
For printed wiring boards

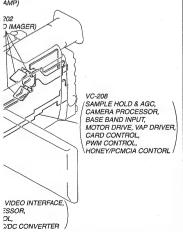
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CONTROL, PWM CONTROL, HONEY, PCMCIA CONTROL) PRINTED WIRING BOARD — Ref. No. VC-208 Board; 10,000 Series —





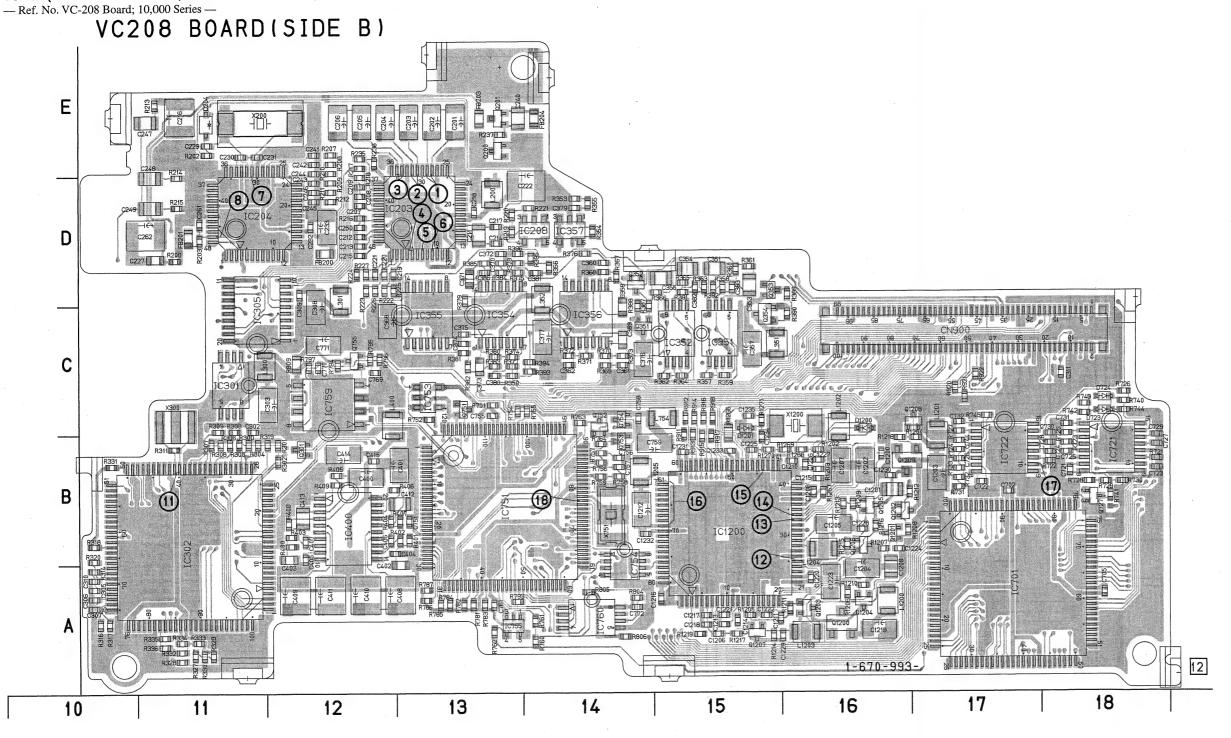
For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CONTROL, PWM CONTROL, HONEY, PCMCIA CONTROL) PRINTED WIRING BOARD

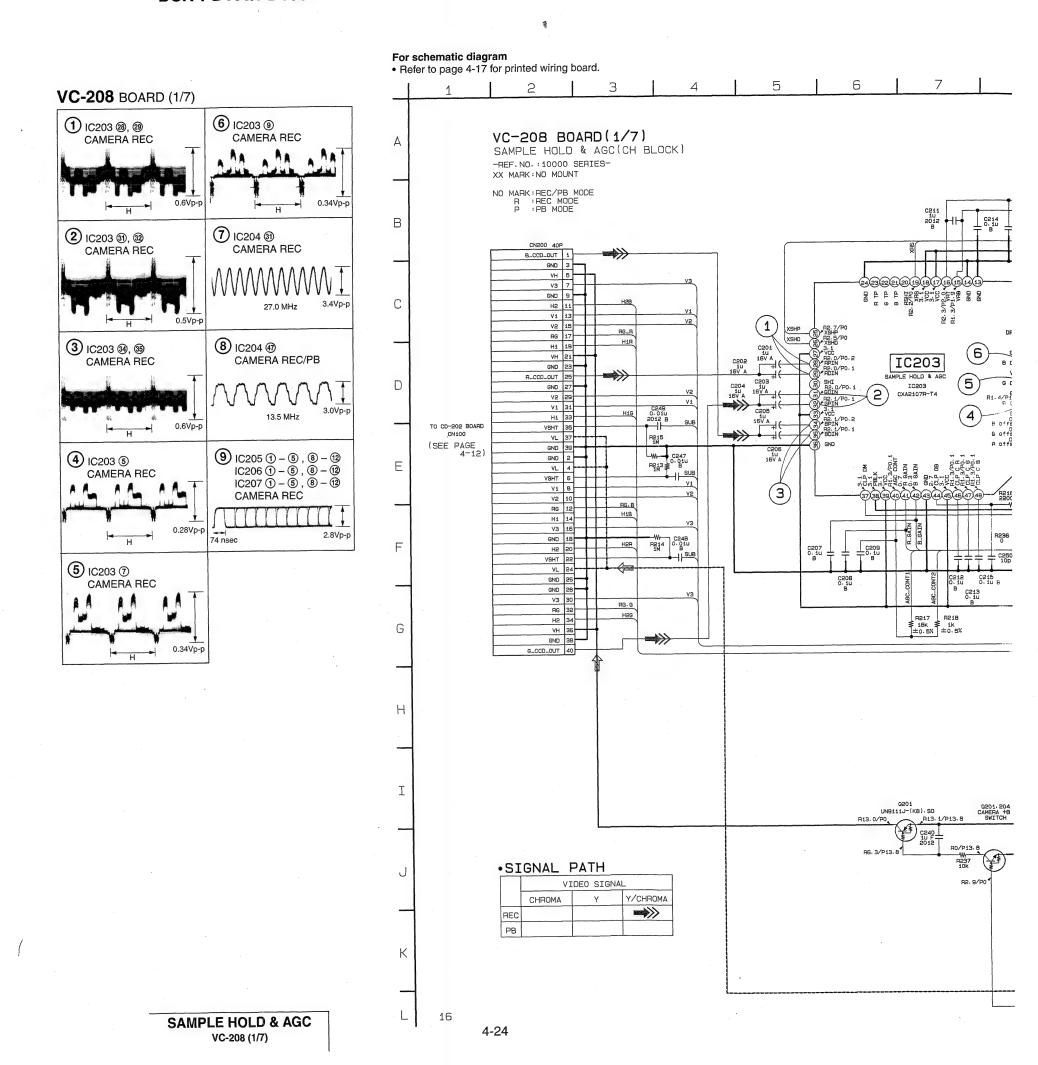


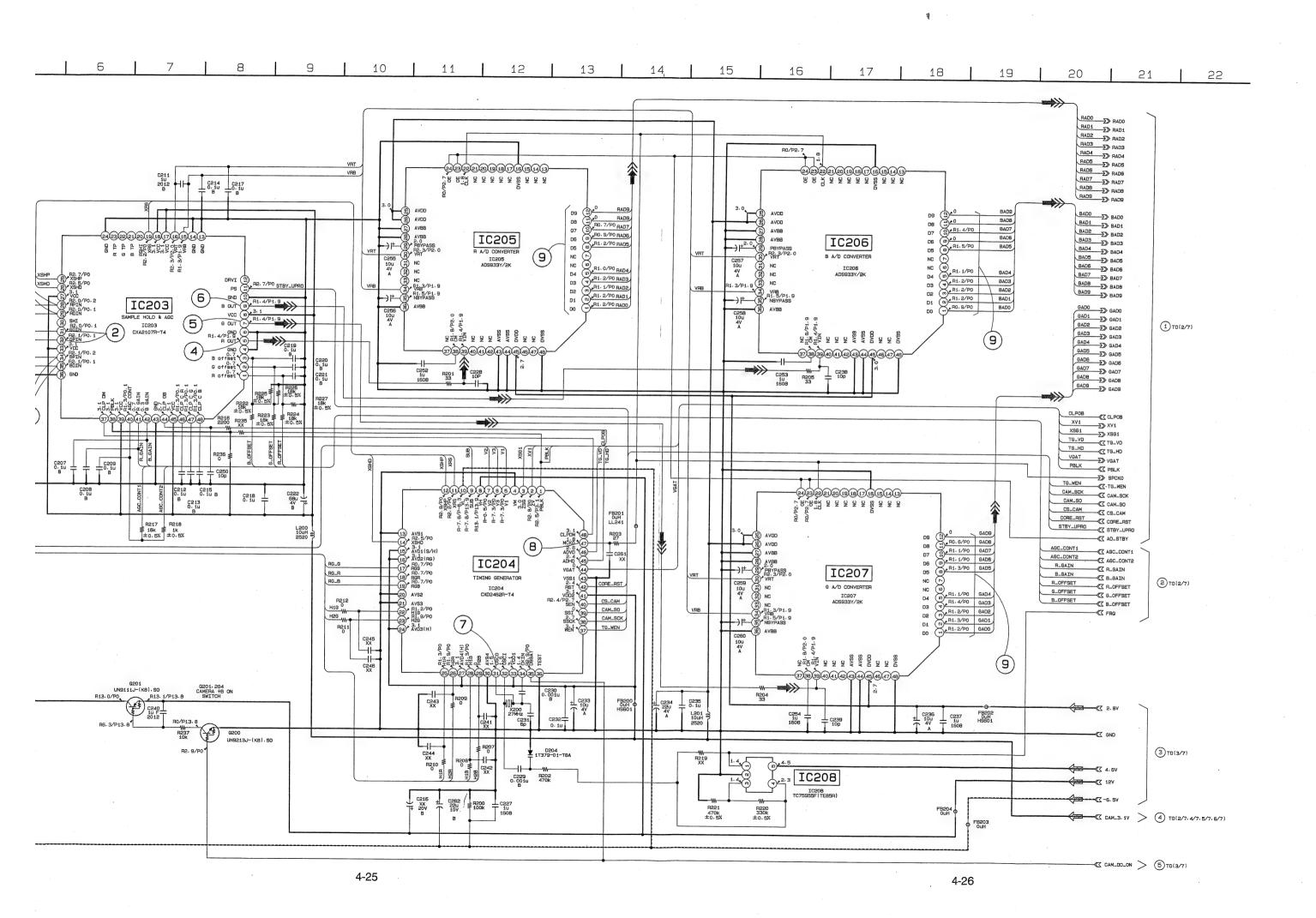
VC-208 BOARD (SIDE B

VC-2	08 BO	ARD (SIDE	B)		
C201 C202 C203 C204 C205 C206 C207 C208 C207 C208 C211 C212 C213 C214 C215 C216 C216 C217 C218 C212 C227 C229 C230 C231 C232 C233 C240 C241 C242 C243 C244 C245 C246 C247 C248 C249 C250 C261 C262 C302 C303 C306 C307 C308 C306 C307 C308 C306 C307 C308 C309 C310 C311	E-13 3 12 2 12 12 12 12 12 12 12 12 12 12 12 1	C411	C305	B-11 15 5 13 14 14 27 8 B-17 8 C-14 15 5 13 12 24 14 15 5 13 12 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	R304 R304 R304 R304 R304 R304 R304 R304

VC-208 BOARD (SIDE B)

C201 C202 C203 C204 C205 C206 C207 C208 C209 C211 C212 C213 C214 C215 C216 C217 C218 C210 C220 C221 C222 C227 C229 C230 C231 C231 C244 C245 C246 C247 C248 C249 C2561 C262 C303 C240 C241 C245 C246 C247 C248 C249 C2561 C262 C303 C306 C307 C308 C301 C353 C306 C307 C308 C307 C370 C371 C372 C373 C374 C375 C376 C377 C379 C383 C400 C401 C402 C403 C401 C402 C403 C401 C402 C403 C404 C405 C406 C407 C408 C409 C410	E-13	C4111 A-12 C412 B-13 C413 B-12 C414 B-12 C415 B-12 C702 B-17 C705 A-18 C721 B-18 C722 B-17 C723 B-18 C724 B-18 C725 B-18 C726 B-17 C727 B-18 C728 B-18 C729 B-18 C720 B-18 C727 B-18 C728 B-18 C729 B-18 C729 B-18 C730 B-18 C731 C-18 C732 C-17 C744 B-17 C751 B-13 C755 C-13 C750 B-14 C757 B-14 C758 C-14 C759 B-15 C761 A-15 C761 </th <th> IC302 B-11 IC305 C-11 IC351 C-15 IC354 C-13 IC355 C-13 IC355 C-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-17 IC751 B-18 IC753 C-13 IC753 C-13 IC755 A-13 IC759 C-12 IC760 A-14 IC1200 B-15 IC300 D-13 IC301 D-12 IC351 D-12 IC351 D-15 IC352 D-14 IC400 D-15 IC307 D-16 IC307 D-17 IC308 D-17 IC308 D-17 IC308 D-17 IC308 D-17 IC308 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-17 IC308 D-17 IC</th> <th> R300 B-11 R301 B-12 R302 B-12 R303 C-11 R304 B-11 R305 B-11 R306 B-11 R307 B-11 R308 B-11 R308 B-11 R309 C-11 R311 B-11 R314 A-10 R316 A-10 R317 A-10 R316 A-10 R317 A-10 R318 B-10 R319 B-12 R320 B-10 R327 A-11 R328 A-11 R328 A-11 R329 A-11 R329 A-11 R330 A-11 R331 B-10 R321 A-11 R333 A-11 R334 A-11 R335 A-11 R335 A-11 R335 A-11 R335 A-11 R335 A-11 R336 A-11 R350 C-15 R358 D-15 R358 D-15 R359 C-15 R360 D-15 R361 D-15 R362 C-15 R363 D-15 R363 D-15 R363 D-15 R364 D-14 R377 C-14 R371 C-14 R371 C-14 R372 C-14 R373 C-14 R373 C-14 R374 C-13 R378 D-13 R380 C-13 R381 C-13 R381 C-13 R382 C-13 R382 C-14 R377 C-13 R378 D-13 R385 D-13 R386 D-13 R387 C-14 R377 C-13 R378 D-13 R389 D-16 R391 D-15 R392 D-15 R393 C-14 R394 C-14 R395 D-14 R396 D-13 R386 D-13 R386 D-13 R388 C-14 R399 D-16 R391 D-15 R392 D-15 R393 C-14 R394 C-14 R395 D-14 R396 D-13 R386 D-13 R390 C-16 R391 D-15 R392 D-15 R393 C-14 R399 D-16 R391 D-15 R390 C-16 R391 D-15 R390 C-16 </th> <th>R724 B-R725 B-R726 R-R726 R-R726 R-R727 B-R728 B-R727 B-R728 B-R729 B-R730 B-R730 B-R731 B-R732 B-R731 B-R732 B-R732 B-R732 B-R742 C-R741 B-R742 C-R754 C-R751 C-R754 C-R755 C-R756 B-R758 B-R757 B-R758 B-R759 B-R759 B-R759 B-R759 B-R759 R-R756 R-R757 R-R758 A-R761 A-R761 A-R761 A-R762 C-R764 R-R761 A-R762 A-R763 A-R764 A-R763 A-R764 A-R763 A-R764 A-R762 A-R763 A-R764 A-R785 A-R786 A-R786</th>	IC302 B-11 IC305 C-11 IC351 C-15 IC354 C-13 IC355 C-13 IC355 C-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-14 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-17 IC751 B-18 IC753 C-13 IC753 C-13 IC755 A-13 IC759 C-12 IC760 A-14 IC1200 B-15 IC300 D-13 IC301 D-12 IC351 D-12 IC351 D-15 IC352 D-14 IC400 D-15 IC307 D-16 IC307 D-17 IC308 D-17 IC308 D-17 IC308 D-17 IC308 D-17 IC308 D-16 IC307 D-16 IC307 D-16 IC307 D-16 IC307 D-17 IC308 D-17 IC	R300 B-11 R301 B-12 R302 B-12 R303 C-11 R304 B-11 R305 B-11 R306 B-11 R307 B-11 R308 B-11 R308 B-11 R309 C-11 R311 B-11 R314 A-10 R316 A-10 R317 A-10 R316 A-10 R317 A-10 R318 B-10 R319 B-12 R320 B-10 R327 A-11 R328 A-11 R328 A-11 R329 A-11 R329 A-11 R330 A-11 R331 B-10 R321 A-11 R333 A-11 R334 A-11 R335 A-11 R335 A-11 R335 A-11 R335 A-11 R335 A-11 R336 A-11 R350 C-15 R358 D-15 R358 D-15 R359 C-15 R360 D-15 R361 D-15 R362 C-15 R363 D-15 R363 D-15 R363 D-15 R364 D-14 R377 C-14 R371 C-14 R371 C-14 R372 C-14 R373 C-14 R373 C-14 R374 C-13 R378 D-13 R380 C-13 R381 C-13 R381 C-13 R382 C-13 R382 C-14 R377 C-13 R378 D-13 R385 D-13 R386 D-13 R387 C-14 R377 C-13 R378 D-13 R389 D-16 R391 D-15 R392 D-15 R393 C-14 R394 C-14 R395 D-14 R396 D-13 R386 D-13 R386 D-13 R388 C-14 R399 D-16 R391 D-15 R392 D-15 R393 C-14 R394 C-14 R395 D-14 R396 D-13 R386 D-13 R390 C-16 R391 D-15 R392 D-15 R393 C-14 R399 D-16 R391 D-15 R390 C-16 R391 D-15 R390 C-16	R724 B-R725 B-R726 R-R726 R-R726 R-R727 B-R728 B-R727 B-R728 B-R729 B-R730 B-R730 B-R731 B-R732 B-R731 B-R732 B-R732 B-R732 B-R742 C-R741 B-R742 C-R754 C-R751 C-R754 C-R755 C-R756 B-R758 B-R757 B-R758 B-R759 B-R759 B-R759 B-R759 B-R759 R-R756 R-R757 R-R758 A-R761 A-R761 A-R761 A-R762 C-R764 R-R761 A-R762 A-R763 A-R764 A-R763 A-R764 A-R763 A-R764 A-R762 A-R763 A-R764 A-R785 A-R786 A-R786
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For schematic diagram • Refer to page 4-17 for printed wiring board. 19 11 | 12 | 13 14 15 16 17 18 8 9 10 5 6 VC-208 BOARD(2/7) CAMERA PROCESSOR(CA BLOCK) NO MARK:REC/PB MODE R :REC MODE P :PB MODE -REF. NO. : 10000 SERIES-XX MARK:NO MOUNT RADO >> RADO RAD1 RAD2 >> RAD2 RAD3 >> RAD3 В RAD4 ∑ RAD4 R330 ≢ R329 RAD5 ∑ RAD5 RAD5 → RAD6
RAD7 → RAD7 RADB > RADB RAD9 RAD9 BADO BADO 5> BAD1 S BAD1 BAD2 SAD2
BAD3 BAD3 AVSS R VAP_PITCH_A/D R 1.3 VAP_YAM_A/D R HO. 6/PO. 2 HALL A /C Q BAD4 ∑ BAD4 CORE_RST BAD5 ∑ BAD5 BAD6 → BAD6
BAD7 → BAD7 STBY_UPRO 0.2 HALL_A/D BAD8 S BAD8 VSS (2)
PIS (B)
PIS (B) H320 2200 C310 0. 1u VAP_DD_ON BAD9 ∑ BAD9 XXXX AND CALLED AND CA C_RESET * GAD1 SAD2

GAD2 SAD2

GAD2 SAD3

GAD3

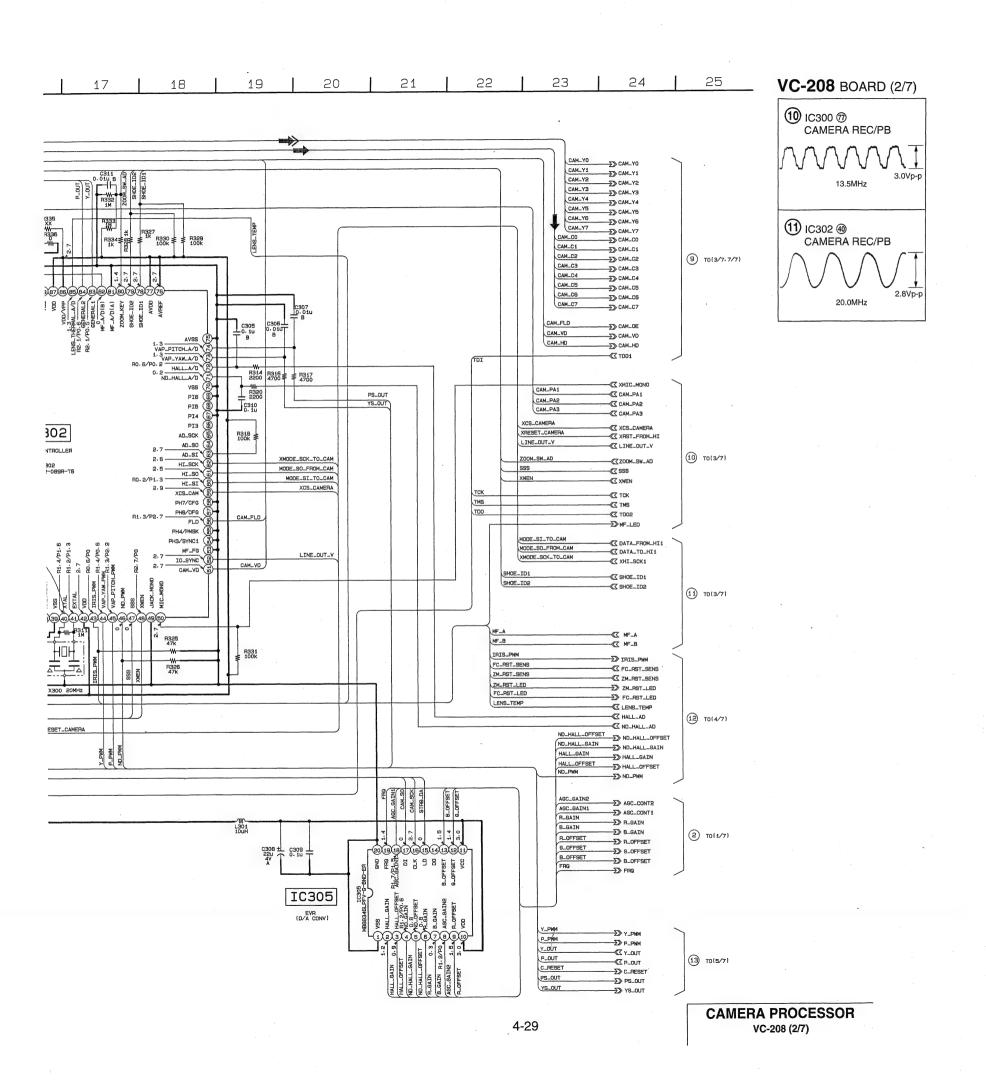
GAD4 GADO VD (80) 2.7

HD (8) 41.8

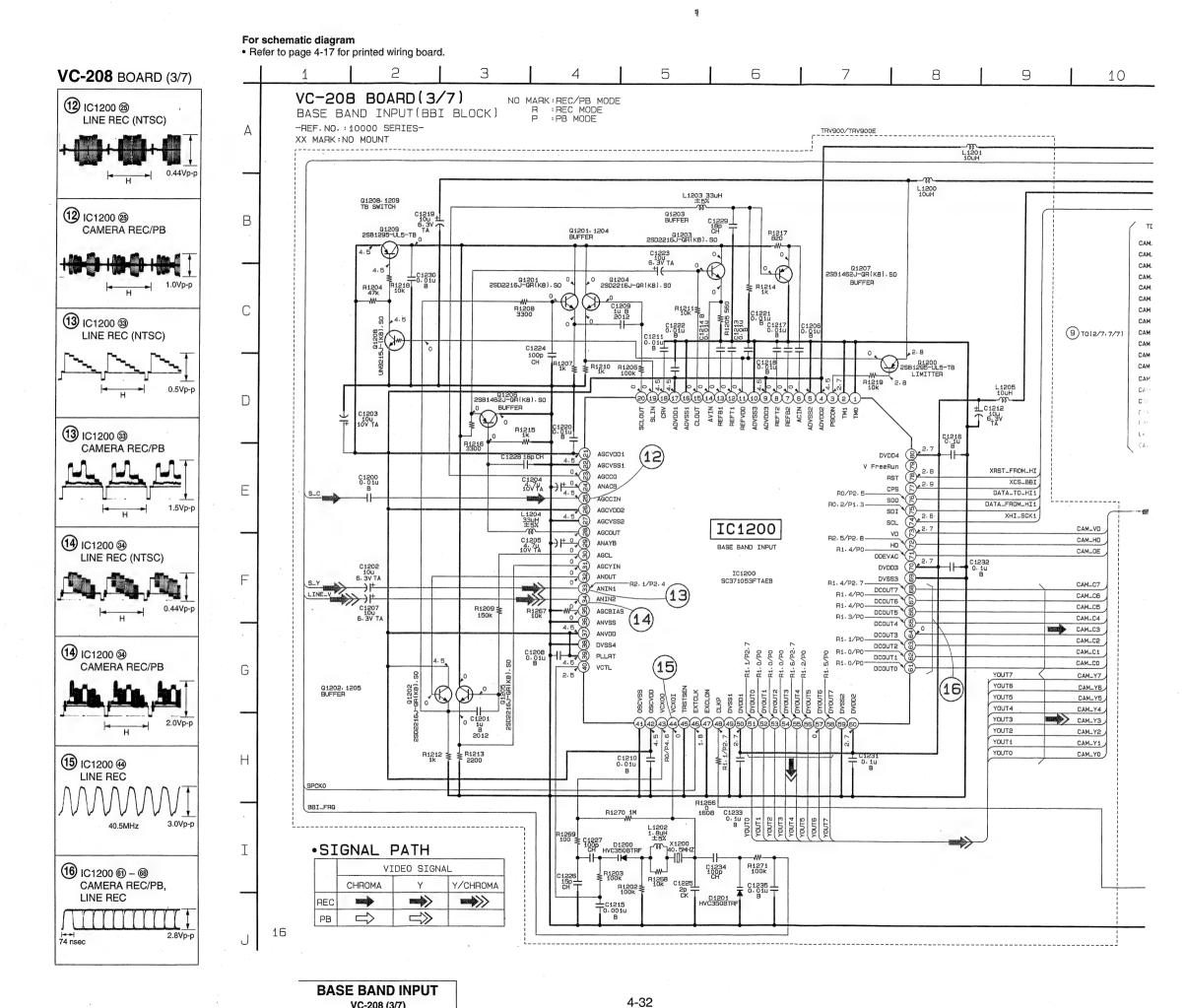
SNO (8) 41.8

R1. 5/P0 VDD (6) 42.7

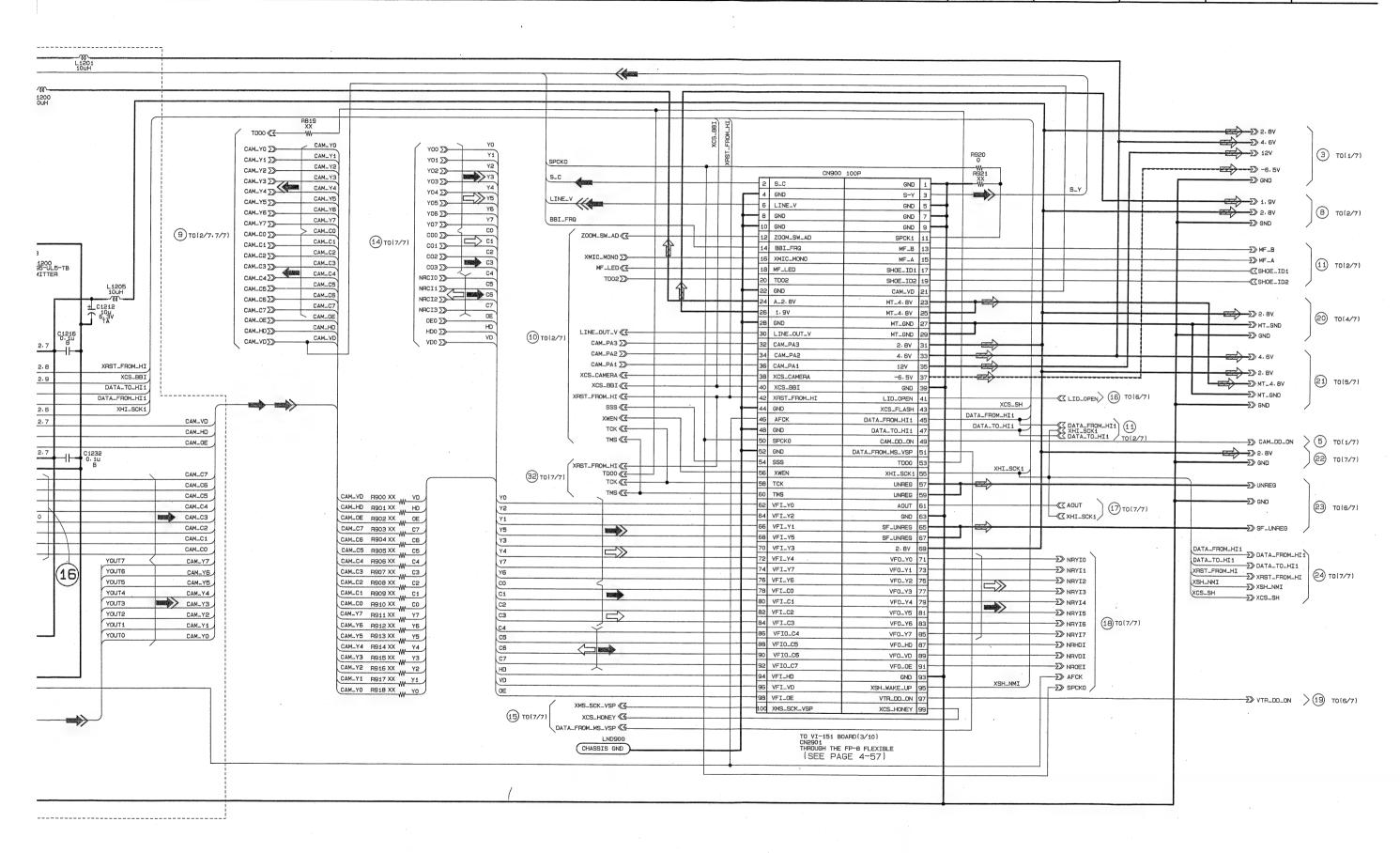
R1. 2/P0 YDUTS (4) YDUT PI4 (6) 1 TO(1/7) IC302 AD_SCK SS AD_SC SS AD_SC SS R318 ₹ GAD4 D GAD4
GAD5 D GAD5 CAMERA CONTROLLER R319 XX GAD5 ∑ GAD6 GAD6 ∑ GAD7 GAD7 ∑ GAD7 2.5 HI_SCK ZM_RST_LED FC_RST_LED B0.2/P1.3 --CAM_Y6 GADB ∑ GADB 2.9 HI_SI R1. 2/P0 YOUTS 43 R1. 8/P2. 7 YOUTS 43 R1. 1/P0 YOUT3 41 R1. 1/P0 YOUT2 40 R1. 0/P0 YOUT1 33 R1. 0/P2. 7 YOUT0 33 CAM_Y5 GAD9 SAD9 CAM_Y4 PH7/CFG (CAM_Y3 PHI// CF 6 6 PHI// CF 6 6 PHI// CF 6 6 PHI// CF 6 PHI// SPCKO ∑≫ FC_RST_SENS IC300 CAM_Y2 CAM_Y1 CLPOB XND_ON_SW NF_B 2.7 CLPOB (T-CAMERA Y/C SEPARATOR CAM_YO XV1 XV1 🌫 YOUTO (38)
R1. 3/P2. 7 — SND (37)
R1. 3/P0 — COUTE (31)
R1. 3/P0 — COUTE (34)
R1. 2/P0 — COUTA (32)
R1. 1/P0 — COUTA (31)
R1. 1/P0 — COUTA (31)
R1. 1/P0 — COUTA (31)
R1. 1/P0 — COUTA (32)
R1. 1/P0 — COUTA (33)
R1. 1/P0 — COUTA (33) PE1 PE2 PE3 XSG1 TG_VD XSG1 >>-CAM_C7 10300 CAM_VD / CAM_C6 TG_HD VGAT CXD3116AR-T6 TG_HD ∑≫ VGAT ∑>-CAM_C4 PBLK IC301 R301 47k PBLK ∑≫-CAM_C2 CAM_SCK CAM_SCK &Z CAM_C1 CAM_SO CAM_SO < CAM_CO CS_CAM CS_CAM (T VDD 28 CORE_RST R325 47k CORE_RST (R304 100k STBY_UPRO STBY_UPRO << R331 100k AD_STBY AD_STBY AD_STBY (0. 1u TG_WEN S (6) TO(5/7) < VAP_DD_ON €₹ 61048
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(6AD7)
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(6AD7) DIR_OA 7 TO(4/7) DIR_OA < DIR_OB DIR_OB DIR_1A DIR-1A (T DIR_18 C DIR_18 COME_RST CAM_SO CAM_SCK A TE SE COL FB300 OUH HS604 FB301 OuH HS601 $^{(4)}$ $^{(1/7.4/7.}$ <CAM_3. 1V 2 •SIGNAL PATH VIDEO SIGNAL Υ Y/CHROMA CHROMA REC PB 16



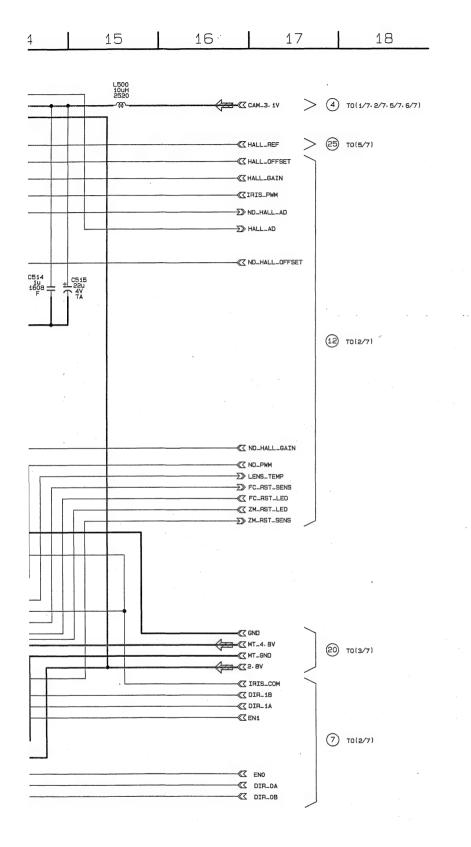
DSR-PD100/PD100P



VC-208 (3/7)



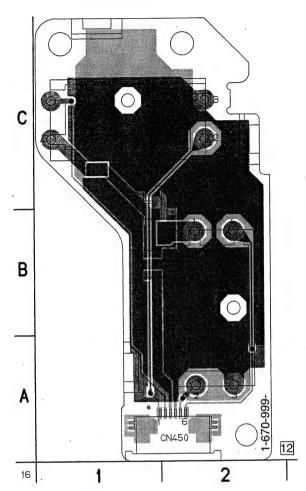
For schematic diagram Refer to page 4-17 for printed wiring board. 8 9 2 3 5 6 10 4 11 12 13 14 15 16 L500 10uH 2520 VC-208 BOARD(4/7) MOTOR DRIVE(LD BLOCK) **€** CAM_3. -REF.NO.: 10000 SERIES-XX MARK: NO MOUNT R512 R513 2200 15k C507 0.220 2012 B R510 470k -≪Z HALL_I NO MARK:REC/PB MODE R :REC MODE P :PB MODE -≪Z HALL_(В →∑>> HALL... D500 MA2S111-(KB).SQ OUT2 IN2+ IN2+ IN1+ IN1-C523 WW R535 O C526 O O O O U B Q501 AMP IC501 6 6 4 3 2 1 HALL/IRIS DRIVER D501 MA2S111-(K8).SO DUTE INE-INE-INI+ INI-Q501 2SD2216J-GR(KB).SO B 9 10 11 12 13 14 R0/P2.8 R0.3/P0 Q502 2SD2216J-QR(KB).SO IC502 Q503 D HALL/IRIS DRIVER ₹ R509 220k P502 2012 1/10W 0. 1 ₹ R518 ₹ R520 C533 R541 10k -KZ ND HA R523 0 2012 1/10W BIAS+ 26 -≪Z ND..PW 0. 1 0. 5 0. 5 R540 1k HALL+ 2 → LENS_ C521 R528 0. iu T R528 BIAS-→ FC_RS HALL--≪Z FC_AS DRIVE-R538 -≪ ZM_RS DRIVE+ → ZM_RS ND_BIAS+ 2 ND_HALL+ ND_BIAS-ND_HALL-ND_DRIVE- 16 LENS BLOCK ND_DRIVE+ 15 C532 XX TEMP_OUT ZM_RST_SENS 12 Q500 2SB1462J-QR(KB).SO G ZM_SENS_VCC 11 -€7 GND FC_RST_SENS 10 **€** MT_4. FC_SENS_VCC 9 -≪Z MT_GN R501 4700 2. BV FC_A B FC...A FC_A 7 FC_B Q505 2SB1462J-QR(KB).S0 -≪ IRIS_ FC_B 6 FC_B -≪Z DIR_1 IC500 C508 14 FC_B 5 ZM_B R500 ≱ R503 68k ≱ 68k -≪Z DIR_1 ZM_B 4 Н ZM_B 3 2.7 ZM_A 2 Q500,505 ZM/FC VCC SWITCHING R545 4700 C518 FB501 OuH * LENS BLOCK is replaced as a block-so that these SCHEMATIC DIAGRAM and PRINTED WIRING BOARD are omitted. -≪Z ENO -≪I DIR--≪I DIR. C502 0.01u C503 0.01u B -) |-ZN-A 16



SE-75 (YAW/PITCH SENSOR) PRINTED WIRING BOARD

- Ref. No. SE-75 Board; 10,000 Series -

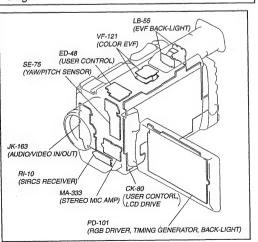
SE-75 BOARD (SIDE A)



For printed wiring boards

• This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.



SE-75 BOARD

C450 B-2 C451 A-2 CN450 A-2

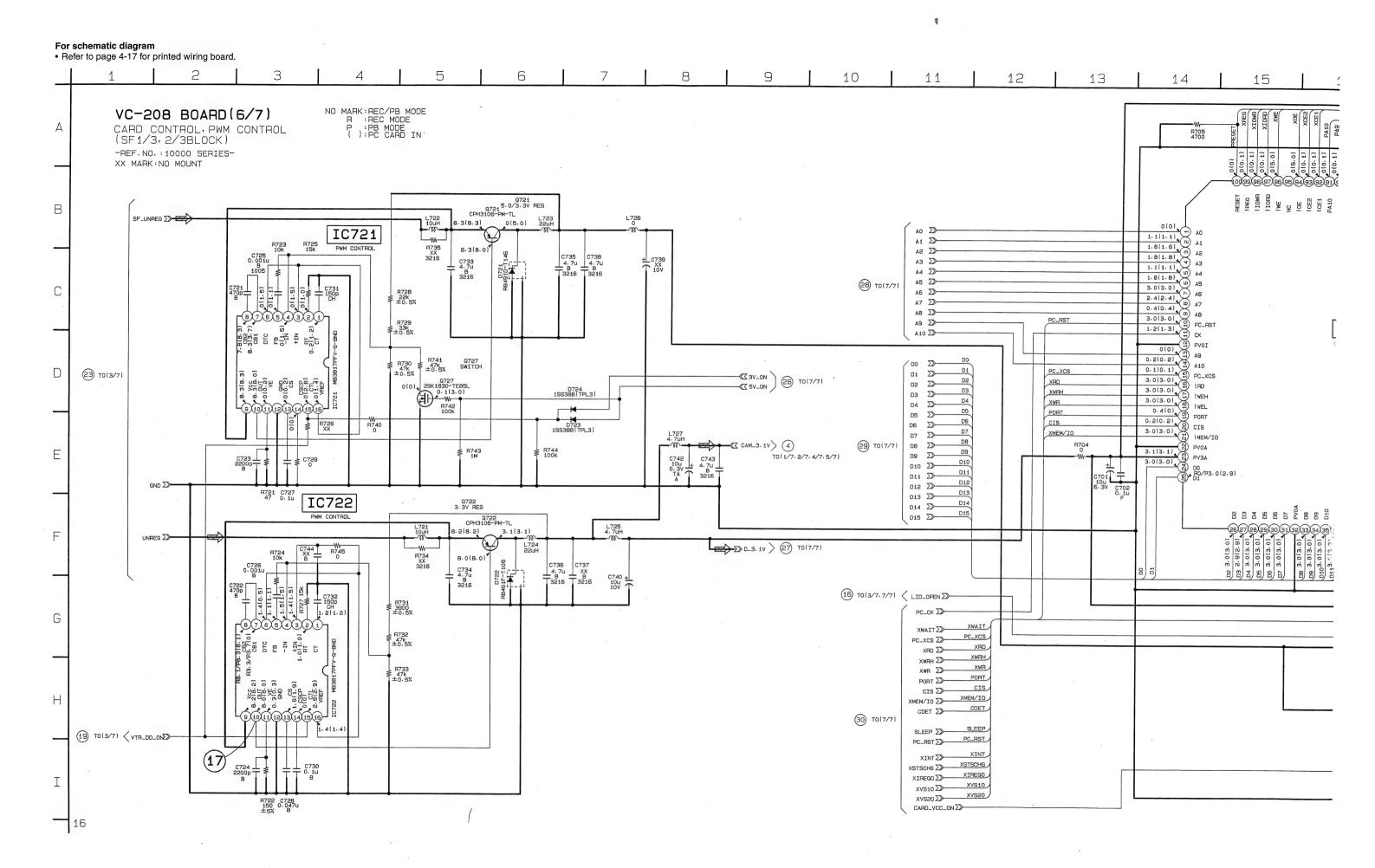
L450 B-1

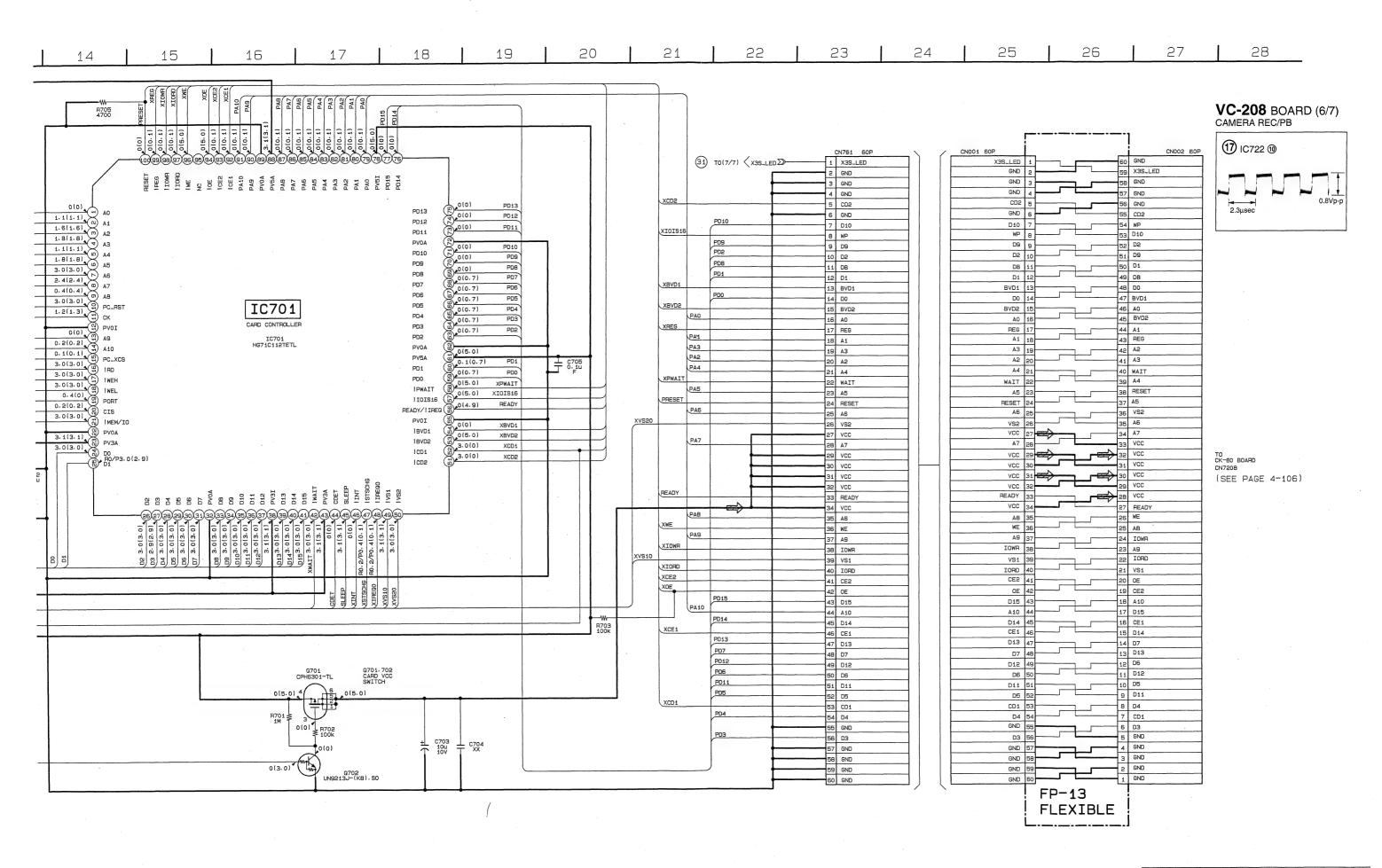
SE450 B-2 SE451 C-1

For schematic diagram

 Refer to page 4-17 for printed wiring board of VC-208. 4 5 VC-208 VAP DRIVE -REF.NO.:10(XX MARK:NO N SE-75 BOARD YAW/PITCH SENSOR В -REF.NO.:10000 SERIES-IC400 YS_REF 2 5 YS_REF GND 3 3 2.8V 2 PS_OUT PS_OUT 5 D Ε G P_DRIV_A B P_DRIV_B 7 P OUT 6 TO LENS BLOCK GND Y_OUT 3 Y_DRIV_B 1 IC351 16

5 6 8 9 10 11 12 13 14 15 16 17 18 19 20 VC-208 BOARD(5/7) NO MARK:REC/PB MODE R :REC MODE P :PB MODE VAP DRIVER(VP BLOCK) -REF. NO. : 10000 SERIES-XX MARK: NO MOUNT IC355 SN74HCT04APW-E20 C407 C409 C411 0.022u 47u 47u 1005B 4VB 4VB R400 22k R403 22k -≪Z Y_PWM PASS T C403 0.033u B 1608 P_PWMI - R1. 4/P2. 2 ± C400 →>>> P_OUT (13) TO(2/7) →>>> Y_DUT C_RESET IC355 YS_OUT 1 IC400 YS YS_OUT L352 100uH 2520 Q351 2SB1462J-QR(K8).SO PS → D PS_OUT YS_REF 2 IC400 UPC6756GR-BJG-E2 YAW/PITCH PWM DRIVE SENSOR AMP R4-5/P1-4 2.8V 4 PS_REF 6 R3. 7/P4. 5 C401 R2.7/P0 Q352 UN9213J-(KB).SO R401 22k ¥ R407 21 TO(3/7) ₹ R381 58k o. 0274 R382 668 C373 0.047u 1608 IC357 H363 22k 22k 20.5% 20.5% HALL DETECT MT_4. BV C375 3300p —≪Z MT...GND TO(1/7, 2/7, 4/7, 6/7) 2.58 2.25 2.25 2.25 2.25 F371 ₹ 47k ±0.5% R354 47k ±0.5% 19.70.5 OUT1
1.270.6 OUT1
1.270.6 OUT2
1.270 IC352 R355 18k ±0.5% VAP PITCH DRIVER 0.B IC356 IC352 NJM3414AV(TE2) IC354 → HALL_REF > 25 to(4/7) C362 H353 470 ±0.5% C379 0. 1u F H372 47k ±0.5% R362 R364 33k ±0.5% 33k ±0.5% → VAP_DD_ON > 6 TO(2/7) R379 10k 10k 10. 57 1834 68k 10. 57 18384 68k 10. 6371 10. 6471 18385 1608 H358 H360 47k C383 H ±0.5% XX + 0.5% R396 100k ±0.5% R2.7/P0 7/P0 WH 10/P4-8 R4-1/P4-9 R376 100k R394 100k ≥ ±0.5% Q354 2SA1588-0Y-TE85L CN351 8P P_DRIV_A 8 P_DRIV_B 7 C372 R386 022u ≨ 68k R4- B/P0-4 R393 68k ±0.5% Q353,354 /AP TB SWITCH P OUT 6 Q353 UN9215J-(K8).S0 ENS BLOCK RISM ACTUATOR) A_4.9V 5 GND . # H2.2/P0.5 # H3.2/P0.5 # H2.2/P0.6 # H2.2 Y_OUT 3 R395 68k ±0.5% Y_DRIV_A 2 C357 10u ± 6.3V TA A IC351



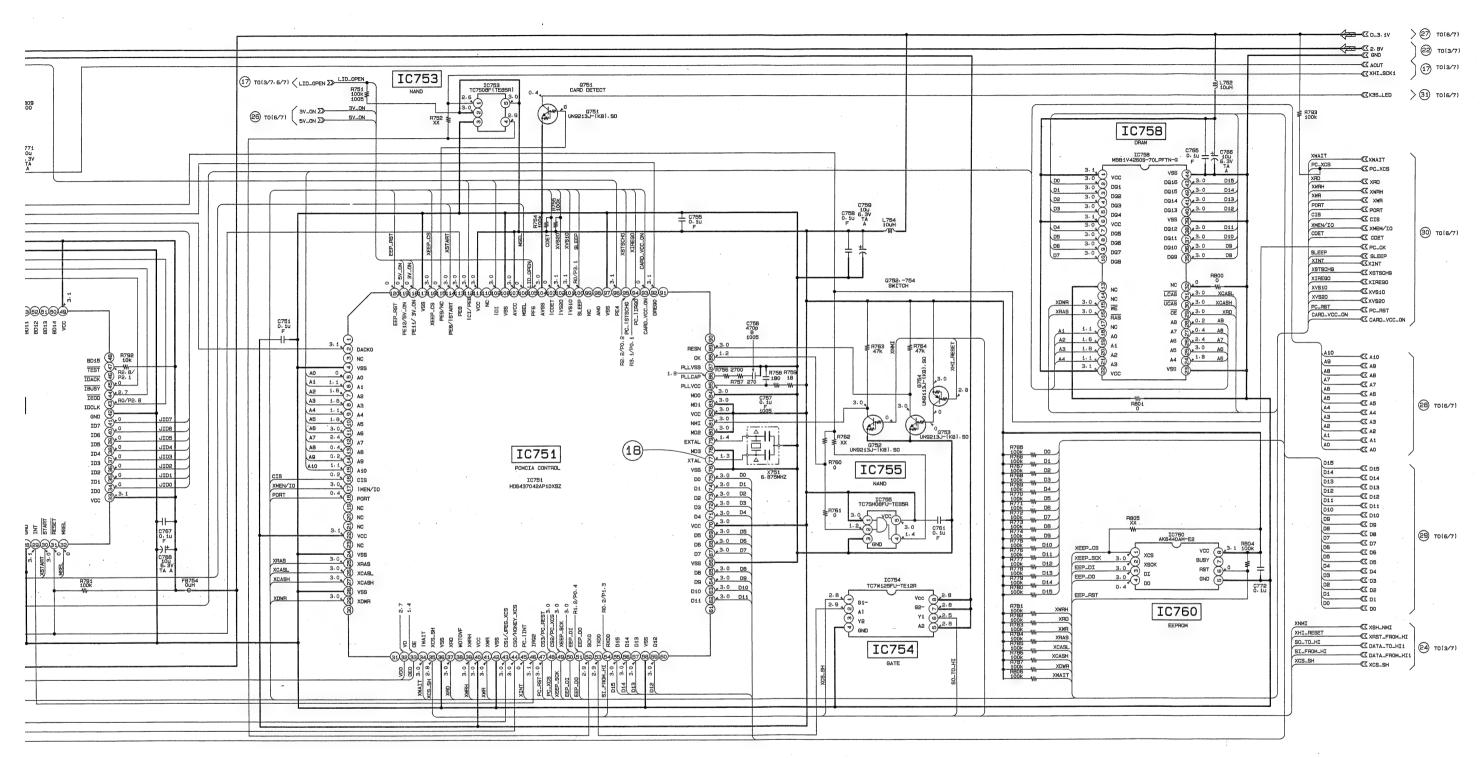


· schematic diagram efer to page 4-17 for printed wiring board. 2 4 8 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 VC-208 BOARD(7/7) HONEY, PCMCIA CONTROL (SF3BLOCK) -REF.NO.:10000 SERIES-XX MARK:NO MOUNT C762 (17) TO(3/ Y01 Y01 Σ>-R809 Y02 32 TO(3/7) TCK 26) Y04 Y05 IC759 Y04 ∑ Y05 ∑ XRST_FROM_HI ∑> Y06 ∑> R794 C00 C00 D (14) TO(3/7) IC752 R788 R 0 0 R 1.8 TDO R 2.2 TMS R 2.7 TDI 上 6770 十 67.30 C03 VDO ∑>----HDO OEO → OEO NRCIO → NRCIO NHCI1 NHCI2 NRVDI DRD15 NRVDI R0.7/P2.7 VSS DRD14 NAHDI | Rocard | R DRD13 TRST TEST1 NRYI1 D010 (0)+0 DRD10 NRYI2 D XCS_HONEY NRYI3 DR09 NRYIA NRYIA NRYIA NRYI3 D JSTART JMSEL IC756 C764 0. 1u F (18) TO(3/7) NRYI6 ∑> HONEY JID1 NAY17 --- BO, 5/P1, 1 IC756 CXD3133AF NRYI7 D NFY14 B NFY14 F0. 4/P1. 8 NFY15 F0. 4/P1. 1 NFY10 B NFY10 F0. 4/P1. 0 NFY10 F0. 4/P1. 0 NFY10 F0. 4/P1. 0 DRAB F0. 4/P1. 0 DR NRVDI 🌫 NAHDI XLCAS (P) 2.7

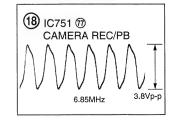
XUCAS (P) 2.7

XOE (P) 2.7 0-1u IDACK (NROEI >> JID3 MCK AFCK 2.7 AFCK ∑ JID5 IC757 IDCLK AB (R) O DHAR AT (R) O DHAR A5 (R) O DHAR A5 (R) O DHAR A4 07 3.0 0 0FEE 0 JID7 (JPEG JIDCLK (2.8 JIEOD (2.7 TD01 Σ≫ IC757 RL5V834/E2H CAM_YO DRAG CAM_YO ZX CAM_Y1 CAM_Y1 ∑> CAM_Y2 DRA4 CAM_Y2 D CAM_Y3 CAM_Y3 D DRAS CAM_Y5 DAM VE TO CAM_Y6 DRA1 CAM_Y6 ∑> CAM_Y7 CAM_Y7 53-9 T0(2/7, 3/7) CAM_HD CAM_HD ∑ CAM_VD CAM_VD ∑≫-CAM_DE CAM_OE ∑ CAM_CO CAM_CO DD CAM_C1 CAM_C1 ∑> CAM_C2 CAM_C2 ∑> CAM_C3 CAM_C3 D CAM_C4 CAM_C4 2 FB754 OuH CAM_C5 C752 0. 1u F сам_сб∑ CAM...C6 CAM OR 23 CAM_C7 D C753 100 6. 3V TA 0. 1u L751 10uH 2520 (15) TO(3/7) XMS_SCK_VSP ∑ XCS_HONEY D •SIGNAL PATH VIDEO SIGNAL Y Y/CHROMA 16 \Rightarrow \Rightarrow PB

| | 18 | 19 |



VC-208 BOARD (7/7)



For schematic diagram • Refer to page 4-91 for printed wiring board. 2 3 5 8 9 4 6 10 11 12 13 14 •SIGNAL PATH VI-151 BOARD(1/10) REC/PB AMP(RF1 BLOCK) VIDEO SIGNAL AUDIO -REF. NO. : 10000 SERIES-Q1810 LIMITTER CHROMA Y/CHROMA SIGNAL XX MARK: NO MOUNT REC \Rightarrow РΒ 1 TO(9/10) CAP_EVR >> 1877 12k 1878 47k R1876 ₹ REEL_EVR REEL_EVR D LND185 B 0.01u DATA_FROM_MS_DRP 🔊 xcs XCS_TRF >> C1837 0.01u XSCK / 2 TO(B/10) XMS_SCK_DAP >>-REC_CRRTO ∑ CONT_E REC_CRRT1 ∑ CONT_0 R1846 XX ±0.5% 1608 R1826 R1828 0.033u 150k 470 R1828 1608 AD A GND

OP1.1 VRT

EAD A VCC

OP1.1 VRT

OP1.1 VRT

EAD A VCC

OP1.1 VRT

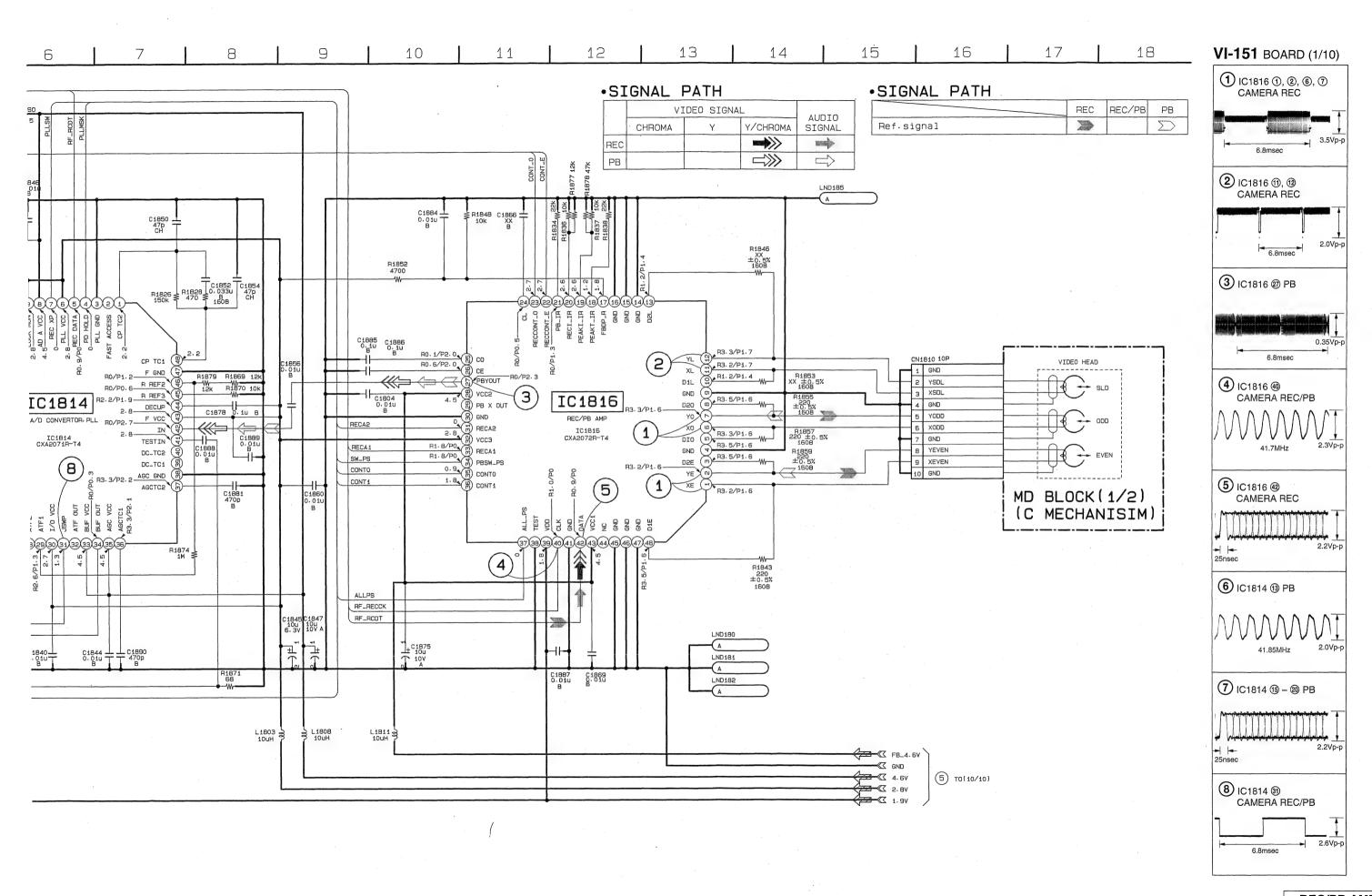
O 24/23/22/21/20/19/18/17/16/15/14/1 RF_RECCK (**6**) É RECCK SS≻ 7 RECOT DECAY RECA1 >>-RO. 1/P2. 0 (D) CO YL R3. 3/P1. 7

XL R3. 2/P1. 7

D1L P1. 2/P1. 4 R0/P1·1 CLK(PB_41·85MHz) PBCK рвскз ∑> 4.5 AD D VCC RO/P1.1 1804 4.5 8 PB X QUI (2)// DATA5 ADDT5 ∑> F GND DATAO RO/P1.0 90/P1.2-R1879 R1869 12k W W 12k R1870 10k DATA4 RO/PO.6 R REF2 4 -R0/P2.3 R1853 XX ±0.5% DATAO ADDT4 DATA4
ADDT3 DATA3 C1804 0.01u \Box DATA1 R0/P1.1 DATA1 R2.2/P1.9 R REF3 (3) GND DATA2 RO/P1.1 IC1814 DATA2 H3. 5/P1. 6 DATA2 IC1816 2.8 DECUP ADDT2 D R PB X OUT D20 (3) TO(2/10) DATA1 DATA3 RO/P1.1 EQ. A/D CONVERTOR, PLL C1878 DATAS O GND

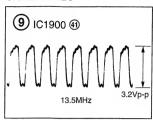
O RECA2

O VCC3 ADDT1 F VCC YO REC/PB AMP DATA4 R0/P1·1 DATA4 RECA2 X0 W R3. 3/P1. 6 ADDTO \$\sum_ IC1816 DATA5 (R) DATA5 TESTIN 7 CXA2072R-T4 DIO R3. 3/P1. 6
GND 7 R3. 5/P1. 6 SW_PS SW_PS >> H1. B/PO (F) PBSW_PS (ONTO) AD D GND 2.7 RECA1 CONTO CTRLO ∑> R3.5/P1.6 XSCK XSCK 1.8 SW_PS DC_TC1 (R) CONT1 D2E CTAL1 >>-R3.2/P1.6 H3. 3/P2. 2 AGC GND CONTO YE (1) YE (1) H3. 2/P1. 6 ALLPS ₩ VDD ALL_PS >> 1. B CONT 1 CONT1 AGCTC2 (m) PLLMSK C1833 0.01u (5 (1) PLLMSK ∑> RECA2 RECA2 ∑> PLLSW PLLSW D 4 H1843 220 ±0.5% 1608 XCS REEL_EV ALLPS CAP_EVR AF_RECCK RF_RCDT C1845 C184 10u 10u 6. 3V 10V SWP 4 TO(7/10) RF_MON ∑> LND180 → — — — 14 RF-IN/LANCJKIN ∑> G LND181 C1887 0.01u C1869 0.01u LND182 L1803 \$ L1808 10uH L1811 Н 16



DSR-PD100/PD100P

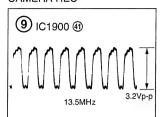
VI-151 BOARD (2/10) CAMERA REC

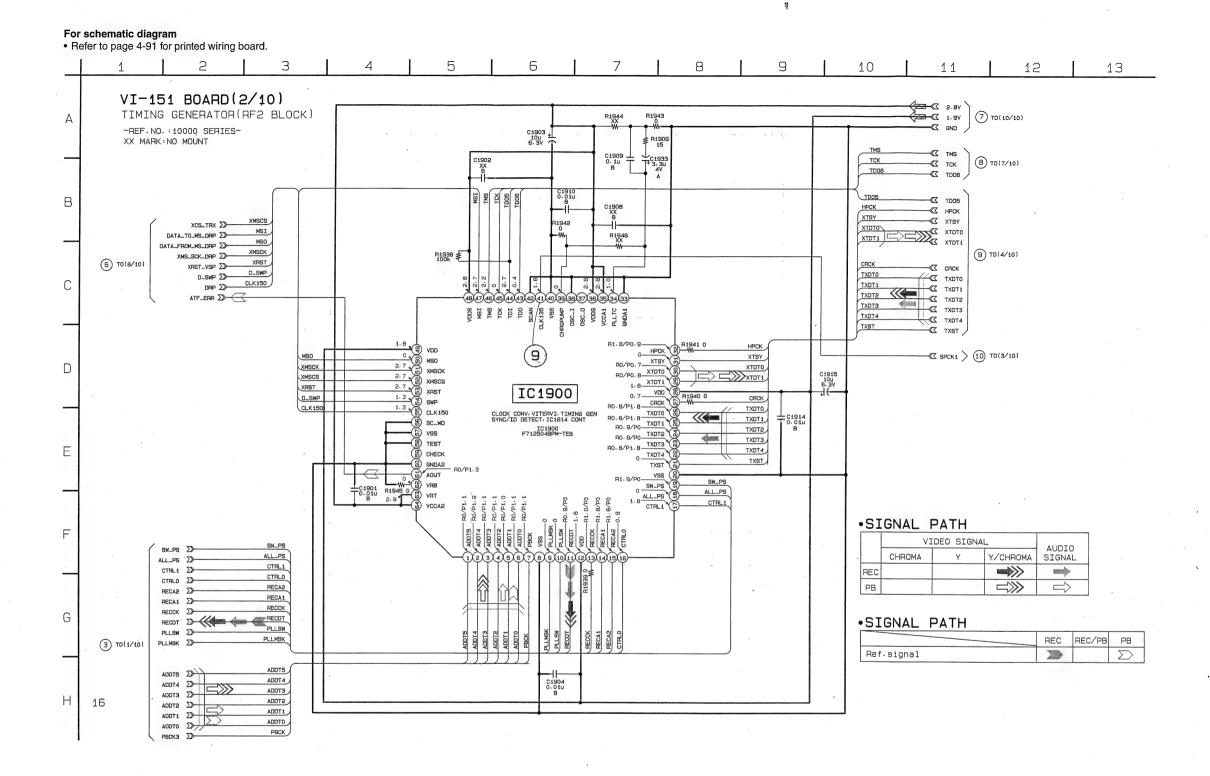


For schematic diagram
• Refer to page 4-91 for printed wiring board.

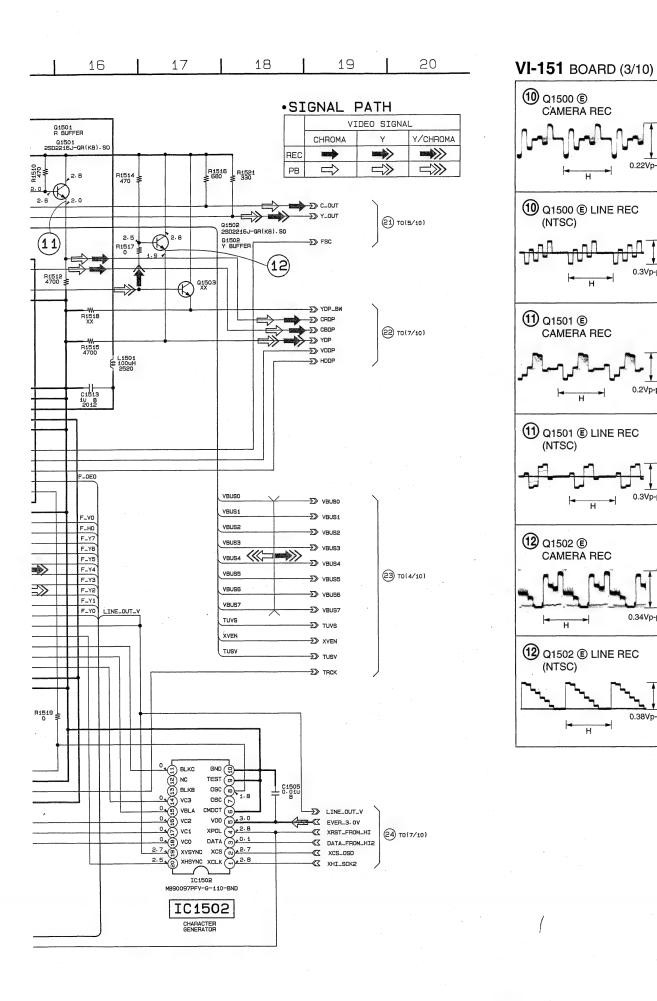
3 5 6 VI-151 BOARD(2/10) TIMING GENERATOR(RF2 BLOCK) Α -REF.NO.:10000 SERIES-XX MARK:NO MOUNT C1903 ± 10u 5.3V В XCS_TRX ∑>----MSI DATA_TO_MS_DRP > R1946 XX MSO DATA_FROM_MS_DRP >>-XMSCK / XMS_SCK_DRP ∑> P1938 € XRST_VSP XRST 6 TO(8/10) D_SWP D_SWP DRP DRP CLK150 C ATF_ERR >> R1.8/P0.9 — O — H0/P0.7 — X = N0/P0.8 — X = 9 D XMSCK XMSCS 1. B X XRST IC1900 D_SWP RO. 8/P1. 8 - T; RO. 8/P1. 8 - T; RO. 9/P0 - T CLOCK CONV. VITERVI. TIMING GEN SYNC/ID DETECT. IC1814 CONT ® sc_wo IC1900 F712504BPM-TEB R0.8/P0_T;
R0.8/P1.8_T;
0_T; TEST Ε CHECK 0 ALI 1.8 C ALL_PS ALL_PS 🏻 CTRL1 CTRL1 >> CTRLO CTRLO D RECA2 RECA2 ∑> RECA1 RECA1 ∑> RECCK RECCK ∑> G RECOT DELISH PLLSW D 3 TO(1/10) ADDT5 ADDT5 C1904 0.01u B ADDT4 23
ADDT3 23
ADDT2 23
ADDT1 23
ADDT0 23 ADDT4 ADDT3 Н ADDT2 16 ADDTO

VI-151 BOARD (2/10) CAMERA REC

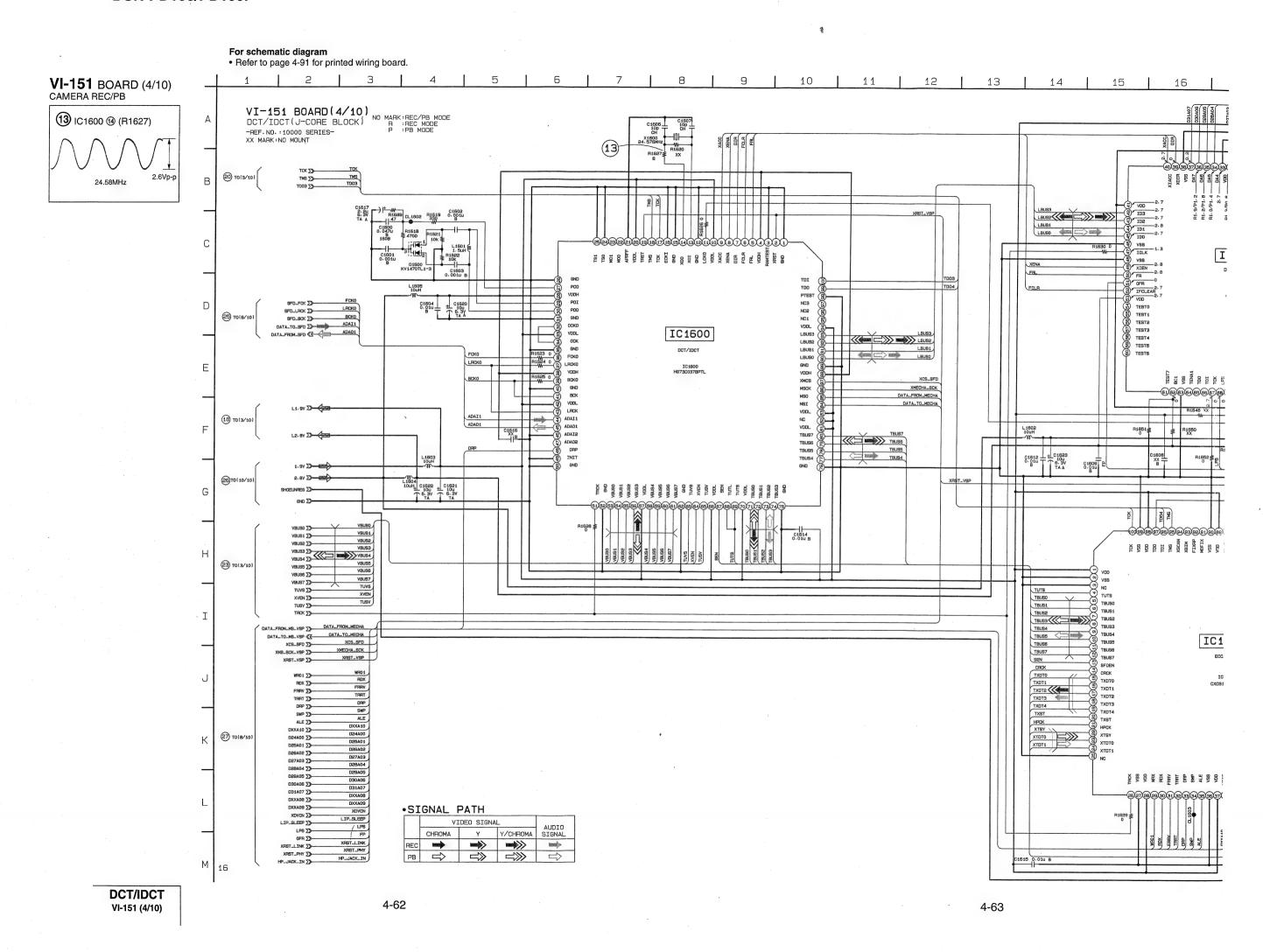


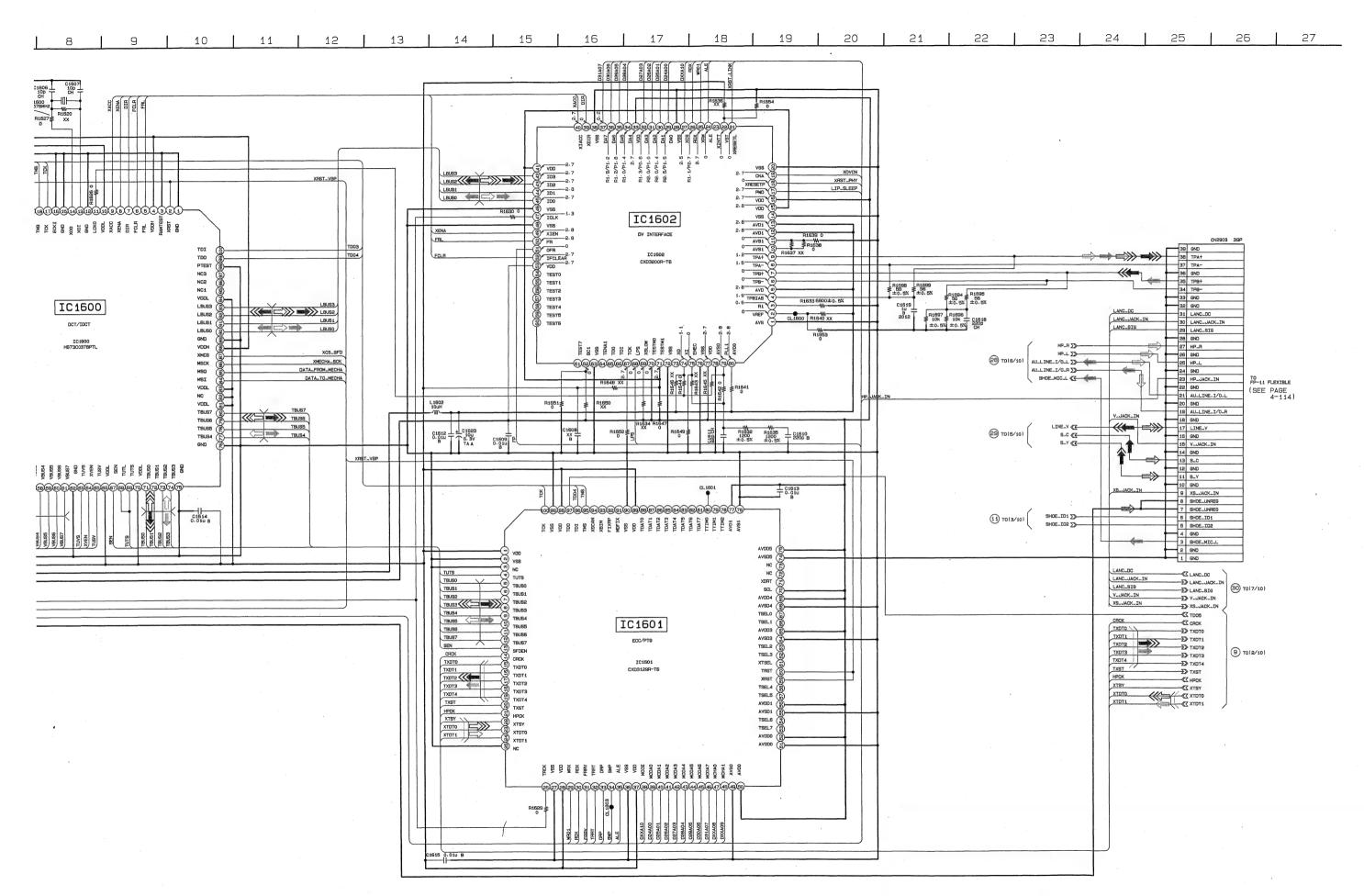


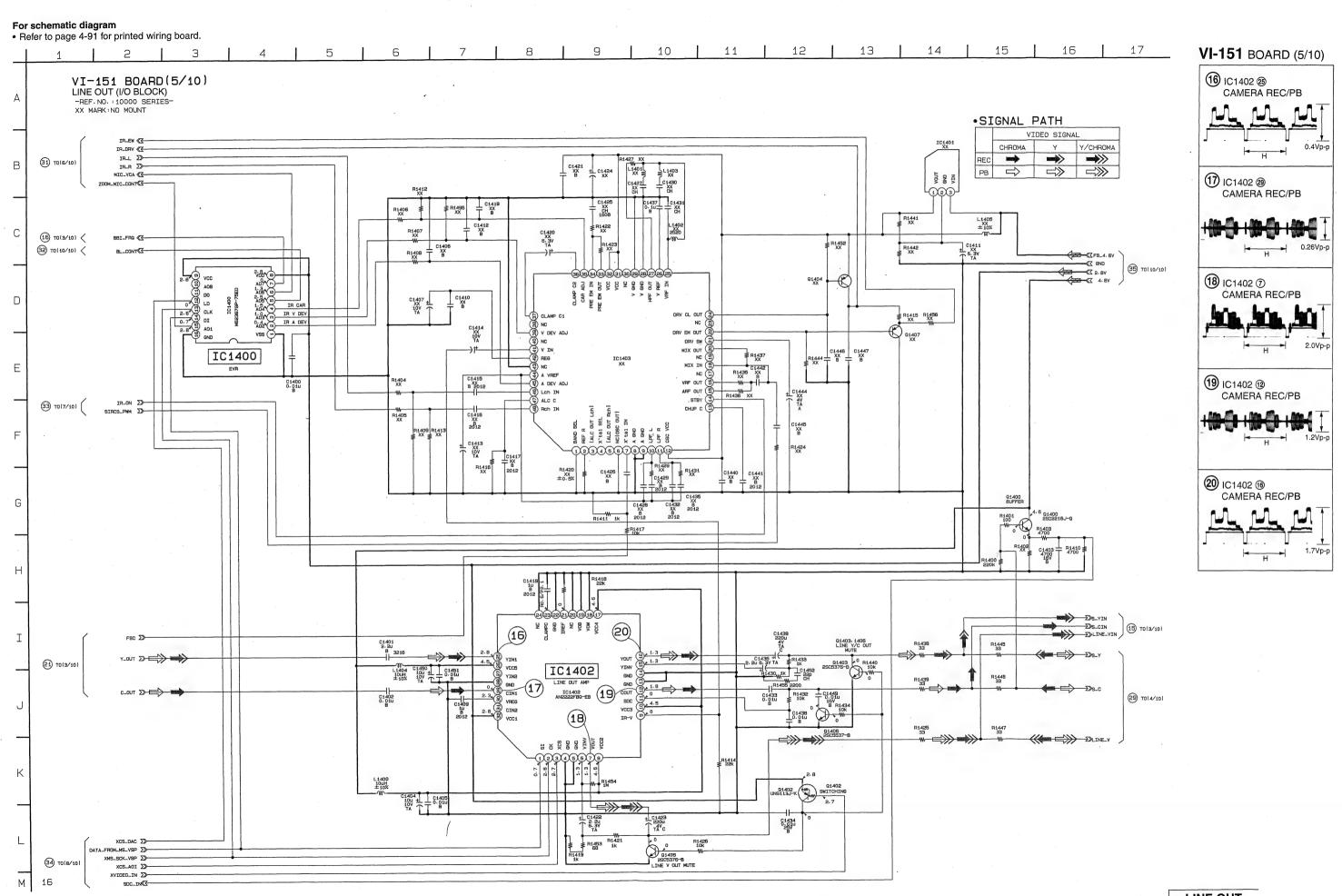
 VTR_DD_ON

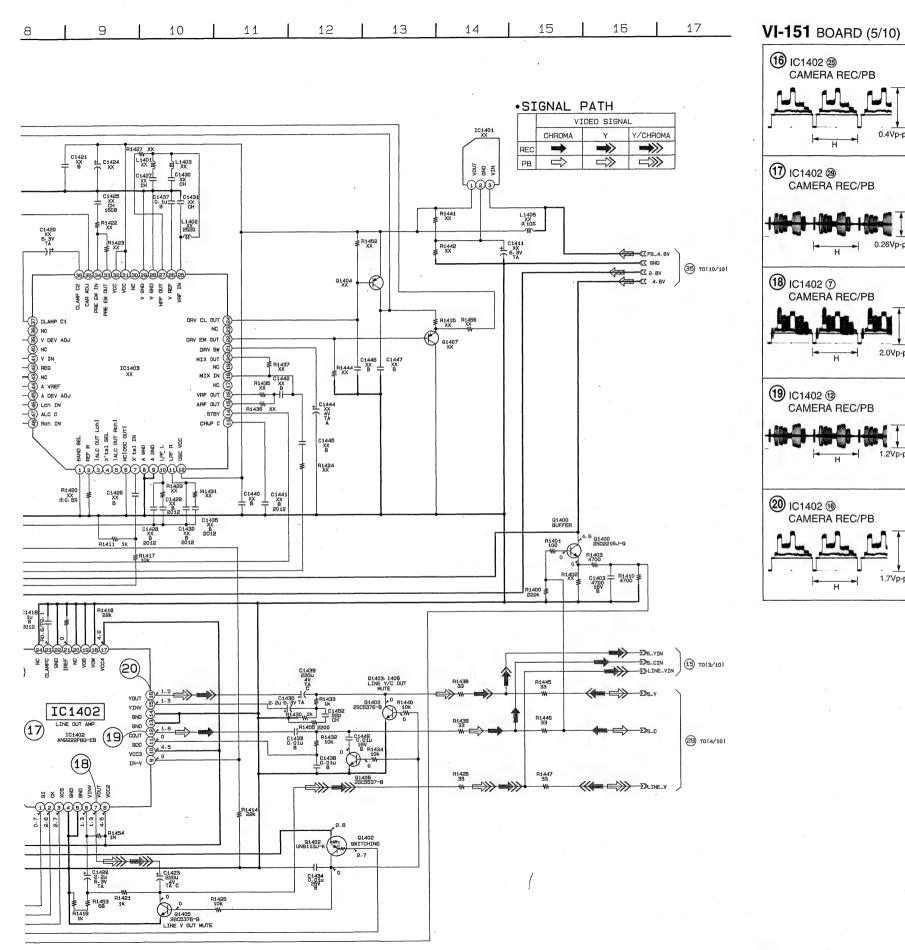


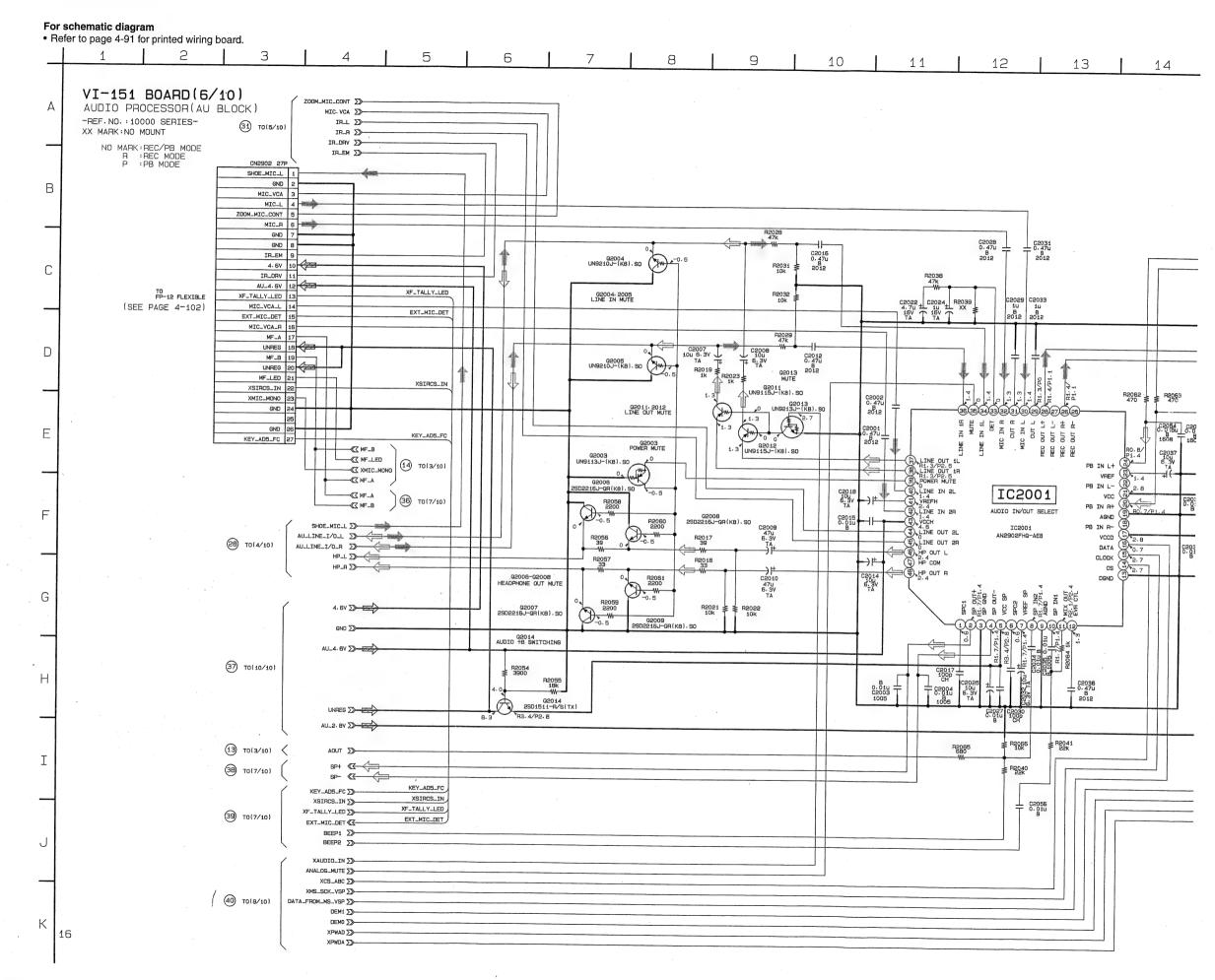
VIDEO INTERFACE VI-151 (3/10)

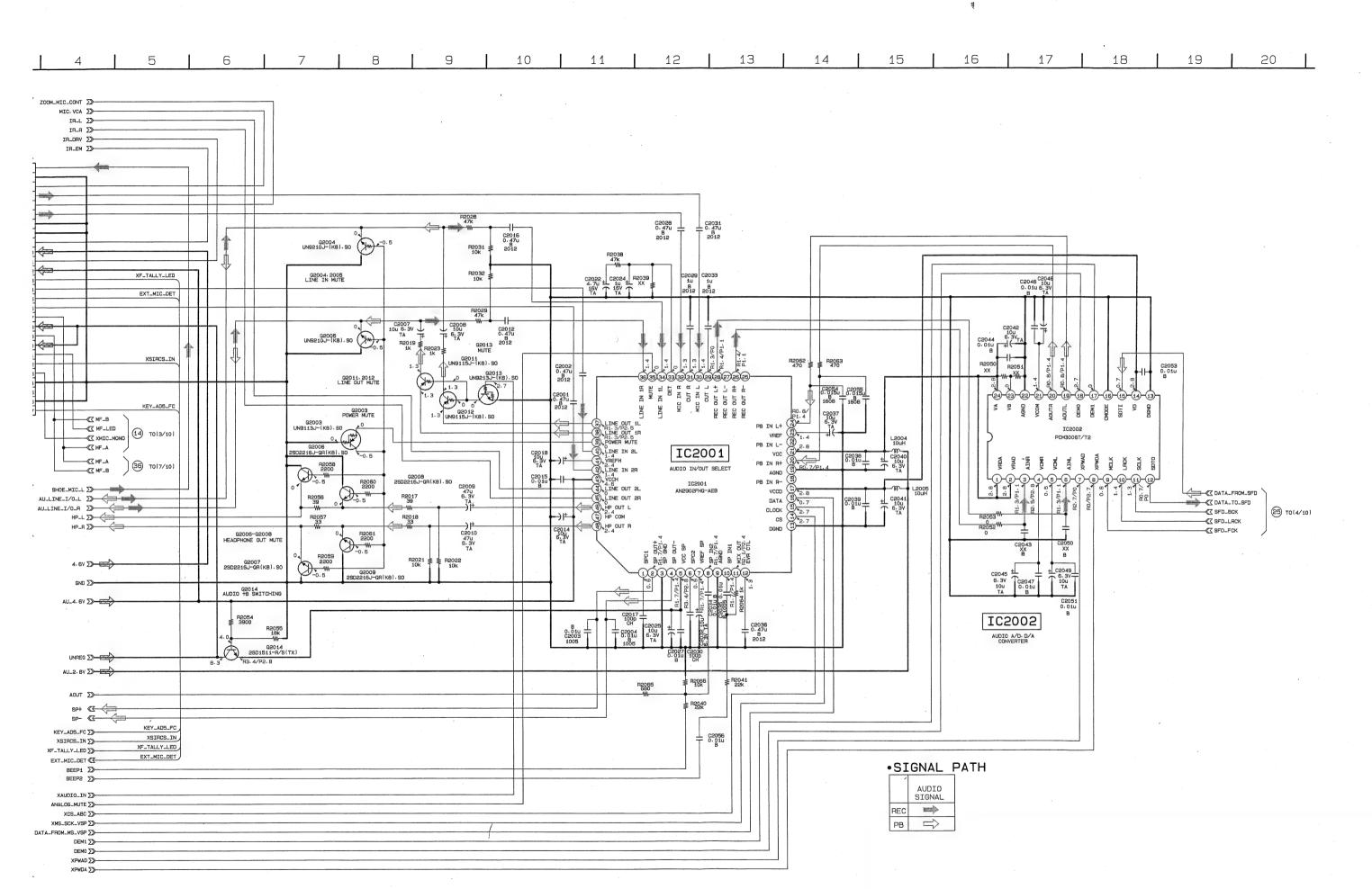




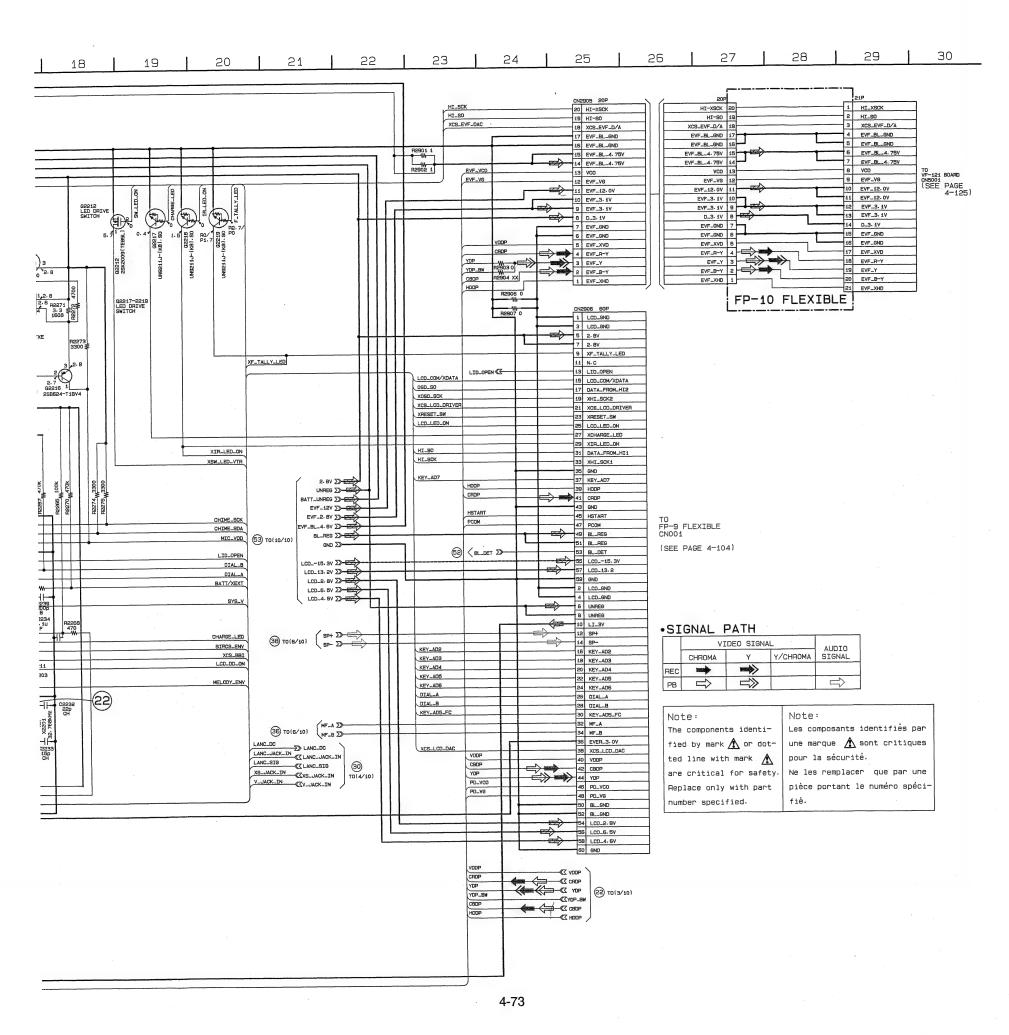






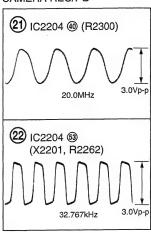


For schematic diagram • Refer to page 4-91 for printed wiring board. 15 16 17 18 19 12 13 14 9 10 11 5 2 VI-151 BOARD(7/10) EXT_MIC_DET EXT_MIC_DET \$ >>-HI CONTROL(HI BLOCK) XSIRCS_IN XSIRCS_IN >>-02202-2221 BUFFER -REF. NO. : 10000 SERIES-' XF_TALLY_LED KF_TALLY_LED SS-XX MARK : NO MOUNT 39 TO(6/10) IC2203 BEEP1 <table-cell> KEY_AD5_FC BEEP2 NO MARK:REC/PB MODE R :REC MODE P :PB MODE LANC IN/OUT BEEP2 ∑ XCC...DOWN XCC DOWN 22 CHIME_SCK (41) TO(9/10) CHIME...SDA CHIME_SDA SS-CHIME_VDD >> MIC_VDD
L2202
1UH XSYS_RST G2211 O TWO SWITCH G2211 UN9111J-(KB). SO R2233 2700 Q2212 LED DRIVE SWITCH KRST_FROM_HI ∑>-XCS_MECHA 0 SIRCS_ENV BUFFER 0 R2208 4700 2. 8, UNG213J-(KB). SO 7654321 HI_SCK 42 TO(8/10) XHI_SCK1 ∑> G2213, 2214 SWITCHING HI_SO DATA FROM HT1 53 HI_SI DATA_TO_HI1 >> SIRCS_PWM SIRCS_PWM >>>-IR_ON G2217-221 LED DRIVE SWITCH 8 9 10 11 13 13 14 B 9 10 11 13 13 14 B 9 10 11 12 13 14 UNREG 1 XCS_OSO 53>-02213 XP4401-TXE N.C. 3 C2225 0.1u F R2236 470k XSW_LED_VTR XSW_LED_VTR 4
XSW_LED_VTR 5 02200 0213J-(KB).50 24) TO(3/10) KEY_ADO XF_TALLY. KEY_AD0 SYS_V C2226 0- 1u F XSYS_RST KEY_AD1 XRST_FROM_HI __ CONTROL SWITCH BLOCK XEJECT_SW H2259 470k H2260 470k Q2216 Q2216 SWITCH 258624-XEJECT_SW 8 EVER_3. 0V ∑> LANC_DC XIR_LED_ON XIR_LED_ON (SEE PAGE 4-88) 2. BV 10 ZOOM..SW.AD 11 XPHOTO_FREEZ
XPHOTO_FREEZ 12 XVTR_MODE_SW XVTR_MODE_SW XVTR_MODE_SW 13 XCAM+STBY_SW 14 XPHOTO_STBY_SW 15 XPHOTO_STBY_SW XCAM+STBY_SW XPHOTO_STBY_SW 15 L2201 10uH ±10% XS/S_SW XIR-LED-ON XS/S_SW 16 CHARGE_INH -3386883383838888383838868 C2215 0010 C2212 B 330 4V TA A CT XX GND 18 D2200 MA728-TX BATT_FET_ON BATT_FET_ON >>--(51) TO(10/10) AVREF_0 IC2201 BATT_SIG Δ SHOE_ON INIT_CHARGE_ON BRUE UN 23-XSIRCS_IN CL2200 | CHIME_SDA R2277 100 CHIME_SCK BACK-UP- RESET XCS_CAMERA CHIME_SDA EVF_DD_ON MIC_VDD 53 TO (EVF_D0_0N 55--CHIME_SOA CHIME_SCK R2278 100 LCD_DD_ON (I) CHIME_SCK VTR_DD_ON PAEEND VIN CHIME_PWR_CONT LID_OPEN VTR_DD_ON ∑> LID_OPEN (9 XSH_WAKE_UP
XSYS_RST CL2201 DIAL_B DIAL B XSH_WAKE_UP CN2904 20P WBAT VOUT OF R IC2204 3.5 (m) VBAT DIAL_A LANC_SIG 1 EVF_BL+ 2 EVF_DD_ON CL2202 XSYSTEM_RESET DIAL A BATT/XEXT (B)
VOD (B)
VOD (C)
VOD (C) BATT/XEXT R2213 W EVF_DD_ON HI CONTROL EFN_BL- 3 N.C(LCD_DD_ON EVF_VG SYS_ EVF_VG 4 6800b EVF_VC0 EVF_VCO 5 0. 1U F GND 6 XVTR. MODE SW XCAM+STBY_SW XCAM+STBY_SW BATT_IN XCS_FLASH ∑> XS/S_SW XEJECT_SW CHARGE_LED IC2200 S-81236PG-P7-T1 CHAEGE_LED XSH_WAKE_UP PD_VCO B XS/S_SW CPC HSTART SIRCS_ENV XEJECT_SW SIRCS_ENV HDDP XSYS_RST XCS_BBI XBST FROM HT 53 XCC_DOWN (FOR CHECK XHD/PSIG 1 XCC_DOWN XCS_CAMERA LCD_DD_ON 2206 \$206 PANEL_COM 11 XCS_CAMERA Σ XPHOTO_FREEZE LCD_DD_ON TMS TCK TD06 HI_SCK D2208 R2234 MA728-TX 27 XPHOTO_STBY_SW XHI_SCK1 ∑> XPHOTO_STBY_SW DATA_FROM_HI1 SS— XLANC_PWR_ON MELODY_ENV MELODY_ENV TCK 13 XLANC_POWER_ON 123 101 101 13.6 HI_SI TDI 14 TDO 15 GND 16 SWP 17 XCS_MECHA IR-LED-ON (21) x2201 2. 768KHz 32KHZ_DUT (B)-CAM_PA1 ∑> XCS_LCD_DRIVER XCS_LCD_DRIVER 55b C5535 SW_LED_ON LCD_COM/XDATA
INIT_CHARGE_ON 17 TO(3/10) LCD_COM_XDATA F_TALLY_LED —≪Z SWP C2237 C2235 XX F CAM_PA3 ∑> - ← RF_IN/LANCJKIN 4 TO(1/10) RF_IN/LANC_JACK_IN 18 GND 19 RF_MON 20 10M 150B 02233 15p IC2500 LANC_JAC LANC_SIG XS_JACK. Q2901 UN9211J-(KB). SO REG -B\$ R2905 4700 LID_OPE LID_OPEN >>>-XCS_BBI XCS_BBI ∑> VTR_DD_ON G2901 LANC ON SWITCH VTR_DD_ON ∑>--CAM_DD...ON ∑>--XLANC_ON R2240 100k R2241 100k R2242 100k TDOS ∑>----TCK ≪Z----TMS ≪Z----B T0(2/10) XCS_DSD XCS_DSD XCS_DSD XCS_DSC XCS_DS H2276 ≱0 0



VI-151 BOARD (7/10) CAMERA REC/PB

*



DSR-PD100/PD100P

For schematic diagram • Refer to page 4-91 for printed wiring board. VI-151 BOARD (8/10) CAMERA REC/PB VI-151 BOARD(8/10) 23 IC2401 ① (X2400) MECHANISIM CONTROL (MD1 BLOCK) -REF. NO.: 10000 SERIES-XX MARK: NO MOUNT MS74 XMS_SCK_VSP < MS75 NO MARK:REC/PB MODE R :REC MODE P :PB MODE (3. DATA_FROM_MS_VSP < XVIDEO_IN << 34) TO(5/10) MS1B XCS_ADI < MS19 MS93 В м57В XMS_SCK_DRP < MS79 DATA_FROM_MS_DRP < 2 TO(1/10) BEC_CBBTO €₹ REC_CRRT1 << XCS_TRF < DEMO << MS87 DEM1 XPWAD << XPWDA «~ 40 TO(6/10) ANALOG. MUTE XAUDIO_IN ≪₹ MS21 XCS_ABC << D XMS_SCK_VSP << MS75 DATA_FROM_MS_VSP < MS75 DATA_FROM_MS_VSP XRST_VSP << MS76 DATA_TO_MS_VSP MS74 XMS_SCK_VSP >> (19) TO(3/10) FRRV << MS108 TRRV « MS112 VREF ∑> MS118 CAM_VD >>-VFI_VD >>--F MS106 FRRV «X XRST_LINK < MS1: XRST_PHY < MS13 ALE (MS14 MS1E HP_JACK_IN ∑> WRO1 MS1E RDX 《【 MS107 G TRRT << MS92 XRST_VSP << MS119 DFA << DATA_FROM_MS_VSP < MS76 DATA_TO_MS_VSP < MS77 LPS << MS74 XMS_SCK_VSP << MS61 DRP (27 TO(4/10) MS84 Н LIP_SLEEP < MS27 D25A01 (MS2E D26A02 (3-MS25 D27A03 (Z-MS3C D28A04 (C-XDVCN ∑≫-SWP (D29A05 《~ D30A06 (C DXXAOB 《【 DXXAO9 DXXA10

XCS_SFD <

XMS_SCK_DRP <

XRST_VSP (T-

ATF_ERR >>>

XCS_TRF <<

D_SWP (Z

DATA_TO_MS_DRP <<

6 TO(2/10)

MS78

MSB0

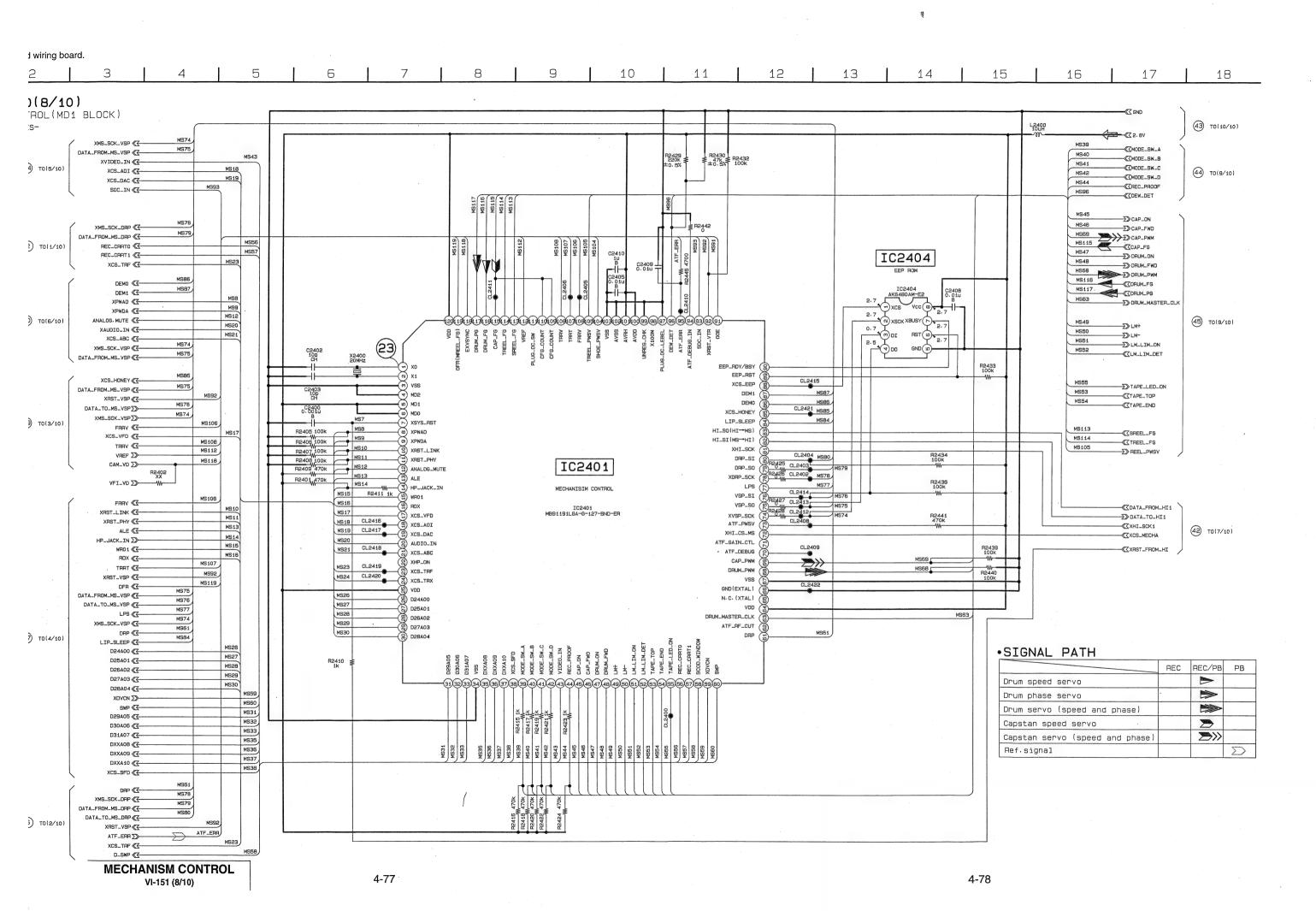
MECHANISM CONTROL

VI-151 (8/10)

ATF_ERR

4-76

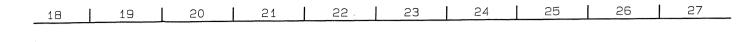
К

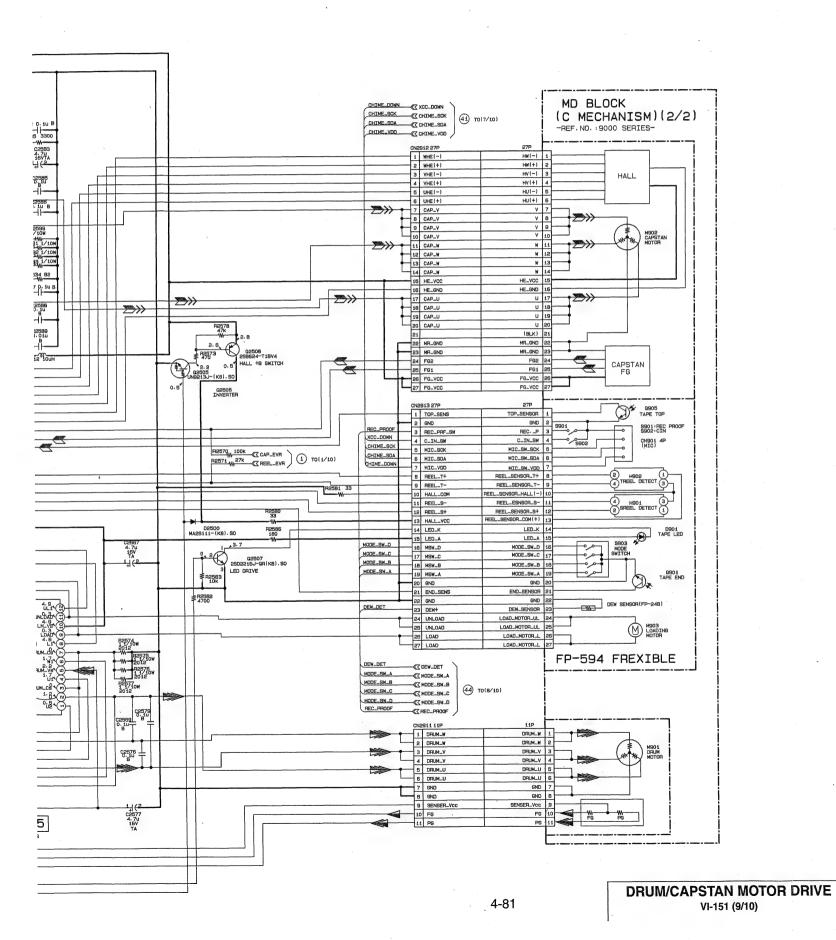


For schematic diagram Refer to page 4-91 for printed wiring board.
Refer to page 4-87 for FP-594 flexible board. 2 5 6 8 9 10 11 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | VI-151 BOARD(9/10) DRUM/CAPSTAN MOTOR DRIVE NO MARK:REC/PB MODE R :REC MODE R :REC MODE P :PB MODE -REF. NO. : 10000 SERIES-XX MARK: NO MOUNT ~~~ UNREG 23-CAP_VSC CT ((CT R2572 33k 10k W 0/2872 0/2876 0/2876 0/2876 DRUM_VSC 《
CAP_VS 》
DRUM_VS 2 C2572 C2583 4.7u 16VTA C2585 0.1u B IC2504 R2534 B2 C2587 0. 1u B C2589 0.01u B L2512 10UH CAP_FWD CAP_FWD∑> CAP_PWM\S>--DRUM_ON∑ DRUM_FWD >>> L2511 10uH DRUM_FG《~ 120k 22k 120k 22k 15% 15% 45) TO(8/10) ASTER_CLK > LM+ LM-LM-LIM-ON LM_LIM_ON >>-TAPE_TOP < SREEL_FG < TREEL_FG (C2551 0.10 8 R2549 4700 D2500 MA2S111-(KB).80 **28** 27 2: 7 B END_OUT C2591 100p CH ₹R2583 ₹R2582 4700 IC2503 0.3 (1) L2 T L1.1 (10) W 2.7 B DRUM_F/R 0. 2 B an DRUM MOTOR DRIVE R2561 XX R2562 XX W R2563 XX IC2503 CXA8062R-EB W R2575 W 2012 W 2012 W 110W 2012 R2576 W 2012 •SIGNAL PATH C2562 C2563 C2564 C2564 C2564 C2564 C2562 C2563 C2564 C2563 C2564 REC REC/PB PB DRUM_Vs (2.2... Drum speed servo Drum phase servo C2576 — Drum servo (speed and phase) **>** Capstan speed servo Capstan servo (speed and phase) C25559 R2510 B ₹ 3300 IC2505 H2551 ≨ 470 ±0.5% R2546 150k 10k L C2556 4780p C2556 R2547 10k M | ₁₆

4-80

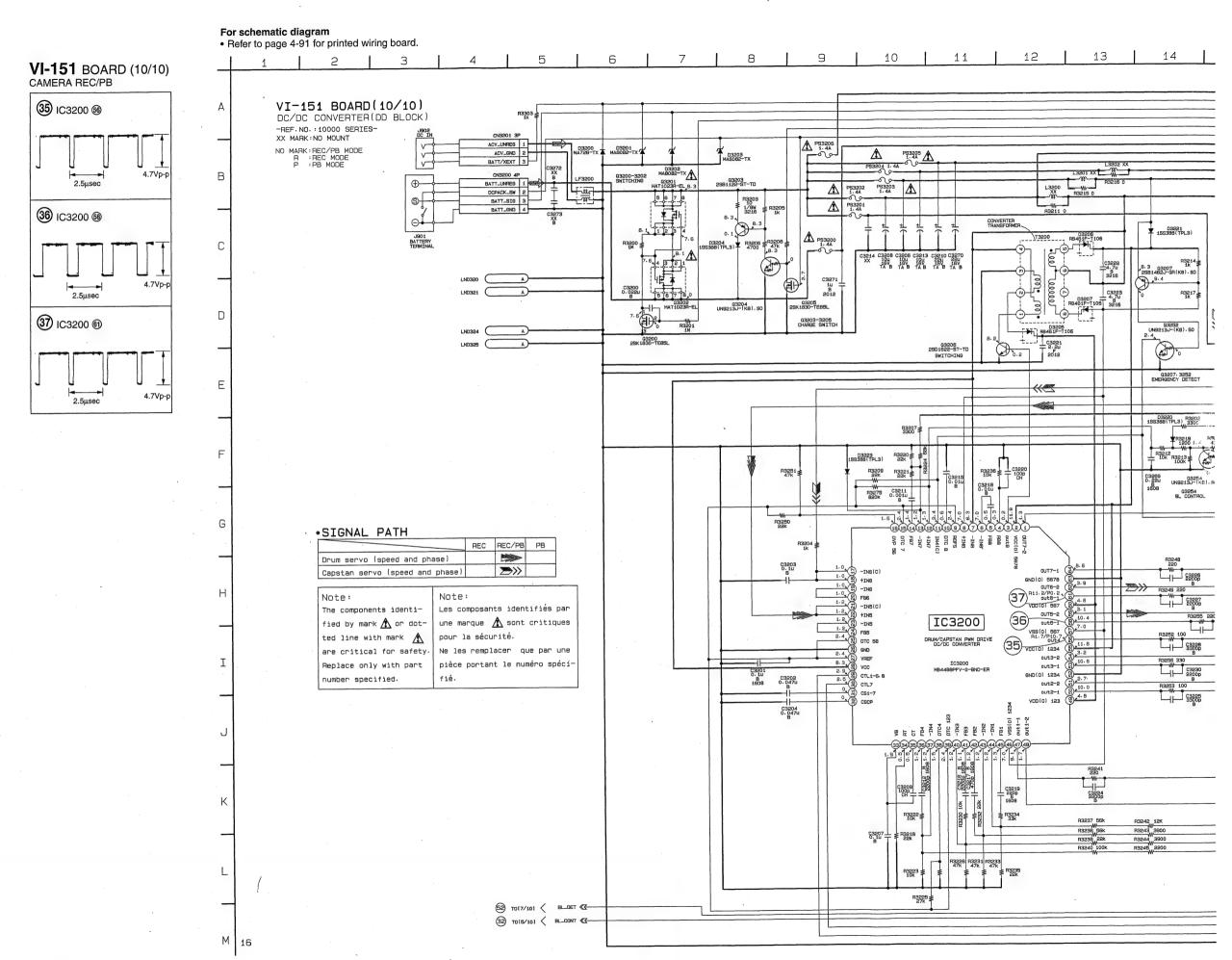
4-79

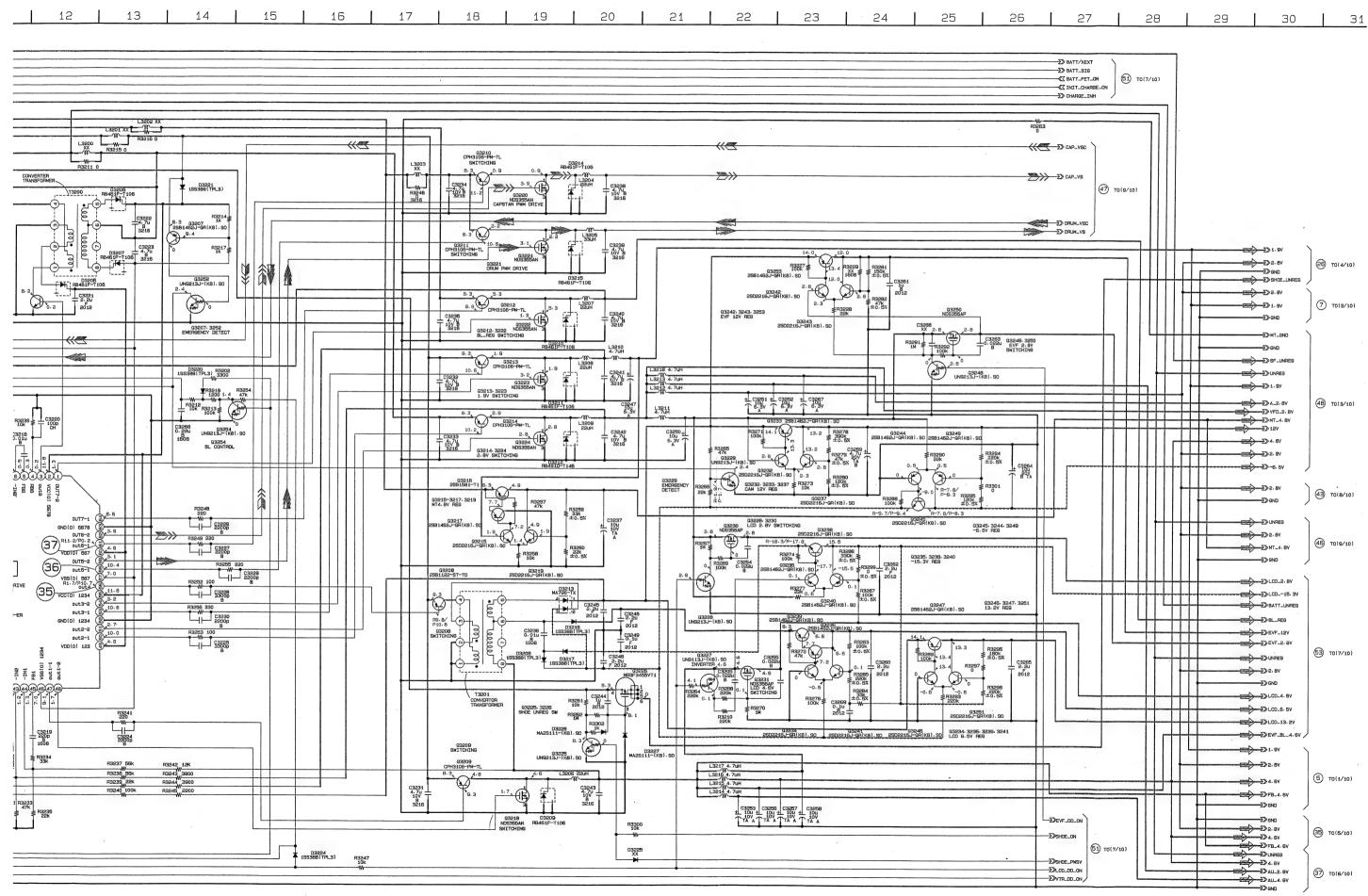




VI-151 BOARD (9/10)

CAMERA REC/PB **30** IC2503 @ **24** IC2503 (4) 6.7msec 2.6Vp-p 1.1msec **25** IC2503 @, @, @ **31** IC2503 **6** 900kHz 0.23Vp-p 1.1msec **26** IC2503 29, 29, 29 **32** IC2504 ① 2.3Vp-p 0.92msec : DV 0.63msec : DVCAM 2.8Vp-p 27 IC2503 (§ 33 IC2504 39, 33, 34 0.6Vp-p 80msec : DV 55msec : DVCAM 2.7Vp-p 28 IC2503 (8) 34) IC2505 @, 18, 23 2.7Vp-p 2.2Vp-p 1.1msec 0.76sec : DV 0.3 sec : DVCAM **29** 1C2503 64 3µsec 2.8Vp-p

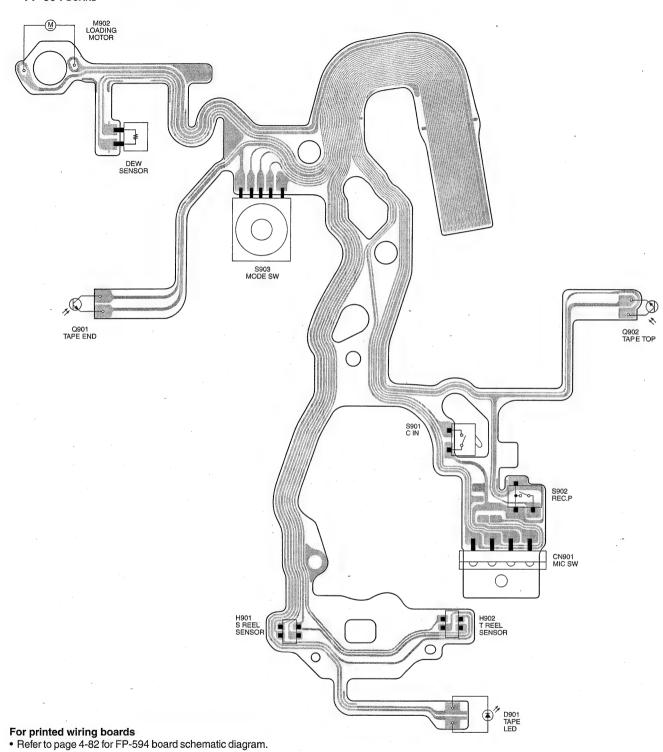




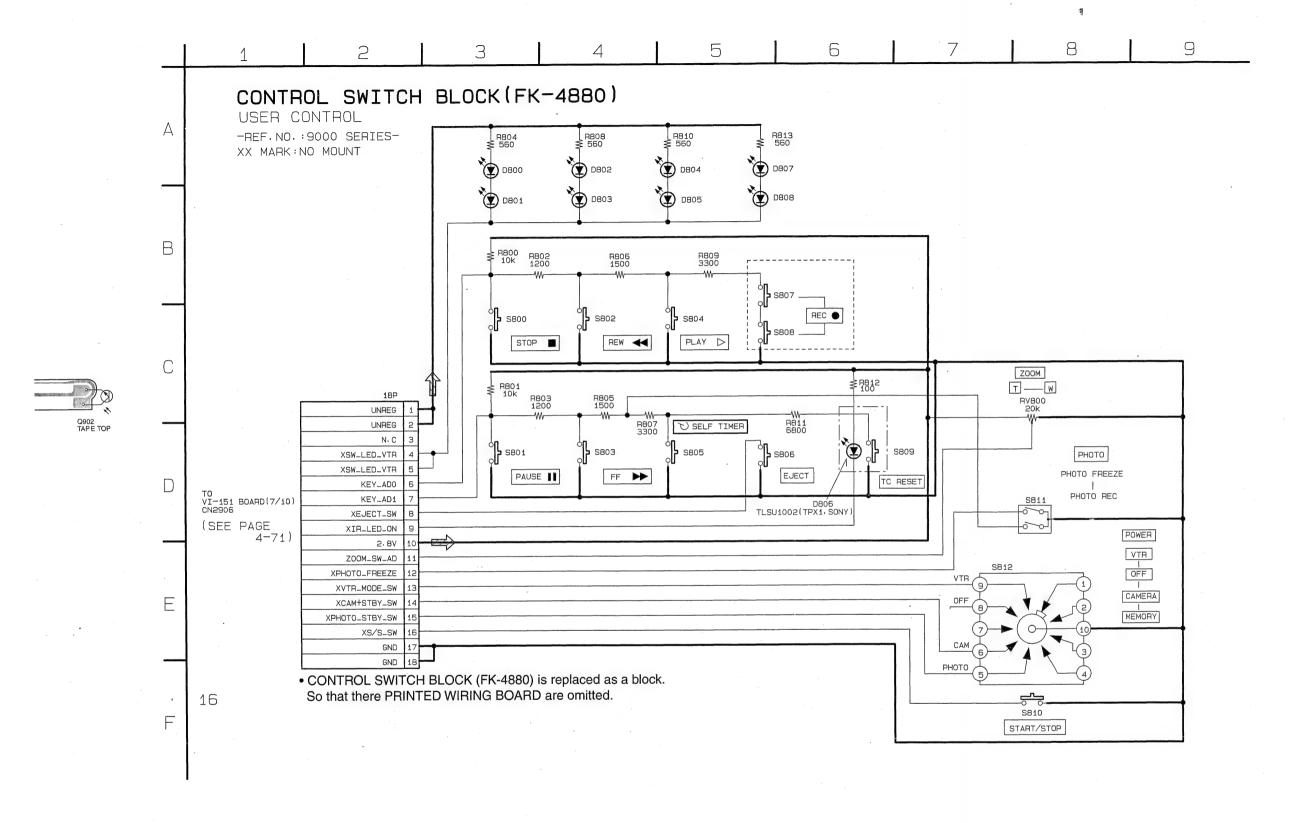
FP-594 (LOADING MOTOR, S/T REEL SENSOR) PRINTED WIRING BOARD

— Ref. No.: FP-594 Board; 9,000 Series —

FP-594 BOARD



6 CONTROL SWITCH BLOCK (FK-4880) USER CONTROL Д -REF.NO.:9000 SERIES-XX MARK: NO MOUNT D807 D804 DB02 D800 DB03 DB0B D805 В **1** S800 REC • STOP REW 🖊 PLAY D \mathbb{C} ₹7812 UNREG UNREG R807 3300 R811 6800 ♡ SELF TIMER N. C S801 **∏** SB03 S805 **்∏** s806 XSW_LED_VTR XSW_LED_VTR PAUSE | FF ► EJĘCT \square KEY_AD0 TC RESET TO VI-151 BOARD(7/10) CN2906 KEY_AD1 DBÓ6 TLSU1002(TPX1, SONY XEJECT_SW (SEE PAGE XIR_LED_ON 2.87 ZOOM_SW_AD XPHOTO_FREEZE XVTR_MODE_SW Ë XCAM+STBY_SW XPHOTO_STBY_SW XS/S_SW GND GND 1 • CONTROL SWITCH BLOCK (FK-4880) is replaced as a block. So that there PRINTED WIRING BOARD are omitted. 16 F



REEL SENSOR

VI-151 BOARD (SIDE A)			
C1401 A-3 C1402 A-3 C1402 A-3 C1404 A-2 C1405 A-2 C1407 B-3 C1418 A-2 C1423 B-1 C1423 B-1 C1433 A-2 C1434 A-1 C1438 B-2 C1438 B-2 C1439 B-2 C1449 B-2 C1450 A-3 C1451 A-3 C1451 A-3 C1452 A-1 C1503 B-2 C15112 B-2 C15113 B-2 C15113 B-2 C15160 A-4 C1601 A-4 C1602 A-4 C1601 A-4 C1601 A-4 C1602 A-4 C1601 A-4 C1602 A-6 C1903 A-6 C1606 A-3 C1615 A-4 C1617 A-4 C1618 A-4 C1618 A-4 C1618 B-3 C1619 A-6 C1904 C-5 C1908 B-6 C1904 C-5 C2049 D-6 C2040 C-1 C2041 B-1 C2042 C-1 C2043 B-1 C2050 B-1 C2	C3244 C-7 C3245 E-7 C3246 E-7 C3248 E-8 C3249 E-8 C3255 E-7 C3260 D-7 C3262 D-7 C3262 D-7 C3262 D-7 C3272 C-9 C3273 B-9 CN1810 A-5 CN2901 A-1 CN2904 D-9 CN2905 F-6 CN2905 C-9 CN3201 C-9 C	Q3205 C-8 Q3206 C-7 Q3215 C-7 Q3215 C-7 Q3217 C-7 Q3219 C-7 Q3225 C-7 Q3226 C-7 Q3227 E-9 Q3235 E-7 Q3236 D-7 Q3238 E-7 Q3238 E-7 Q3238 E-7 Q3240 D-7 Q3241 D-7 R1414 B-2 R1419 B-2 R1419 B-2 R1421 B-2 R1421 B-2 R1421 B-2 R1422 B-3 R1430 B-1 R1431 B-2 R1510 B-2 R1511 B-2 R1510 B-2 R1511 B-2 R1511 B-2 R1512 B-2 R1513 B-2 R1514 B-2 R1515 B-2 R1515 B-2 R1516 B-3 R1620 A-3 R1621 A-4 R1622 A-4 R1623 B-3 R1624 A-4 R1625 A-4 R1625 A-4 R1626 A-3 R1629 C-5 R1629 C-5 R1630 A-6 R1941 B-5 R1942 A-6 R1943 A-5 R1944 A-6 R1945 C-6 R1946 A-6 R1947 A-6 R1948 A-6 R1949 A-5 R1940 B-5 R1941 B-5 R1941 B-6 R1942 A-6 R1943 A-5 R1944 A-6 R1945 C-6 R1946 C-5 R2405 C-1 R2051 C-1 R2052 C-1 R2052 C-1 R2053 C-5 R2406 C-5 R2407 C-5	R2416 C-R2417 C-R2418 C-R2419 C-R2421 C-R2423 C-R2425 D-R2426 C-R2425 D-R2426 C-R2425 C-R2427 C-R2428 C-R2429 C-R2433 C-R2434 D-R2436 C-R2442 D-R2442 C-R2442 C-R244

R2407 C-5 R2408 C-5 R2409 C-5 R2410 C-5 R2411 C-5

Q1502 B-2 Q1503 B-2 Q2507 B-8

Q3203 C-8

X1600 A-3 X2400 D-6

C2589 B-7 C3205 E-9 C3221 C-7

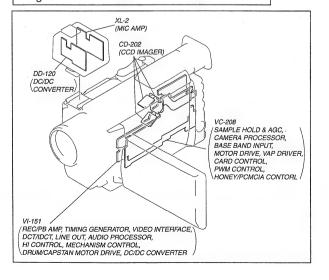
C3236 E-8

For printed wiring boards • This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

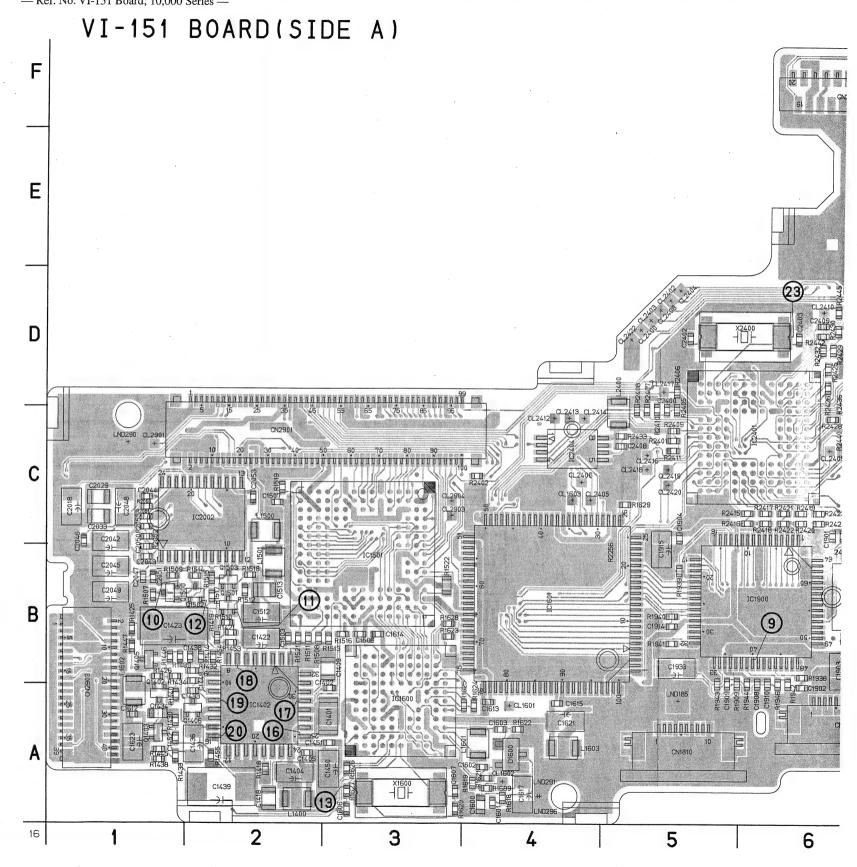
Chip parts

Transistor

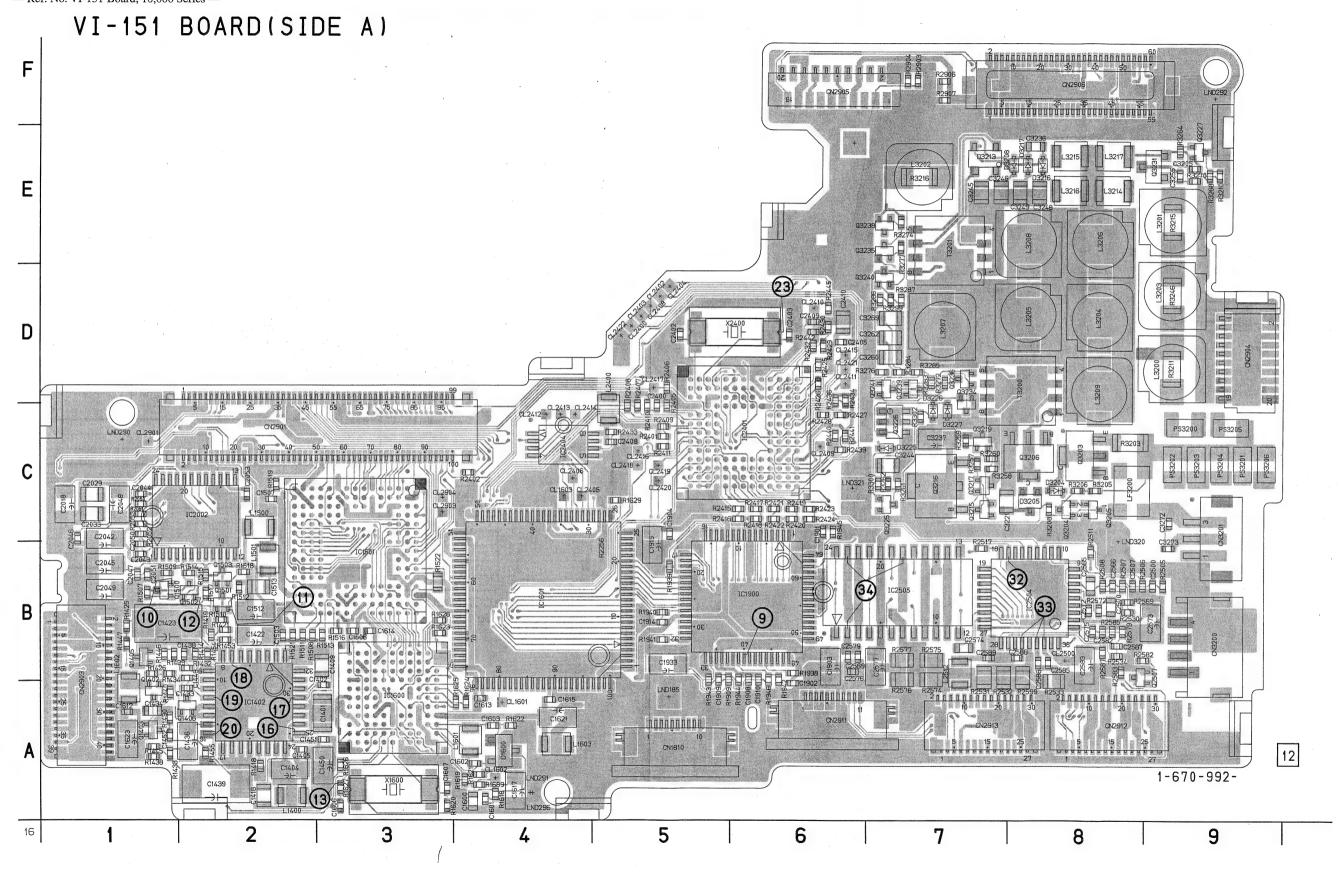
There are few cases that the part printed on this diagram isn't mounted in this model.



VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, LINE OUT, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRING BOARD - Ref. No. VI-151 Board; 10,000 Series -



— Ref. No. VI-151 Board; 10,000 Series —



C1884 C1885 C1886 C1887

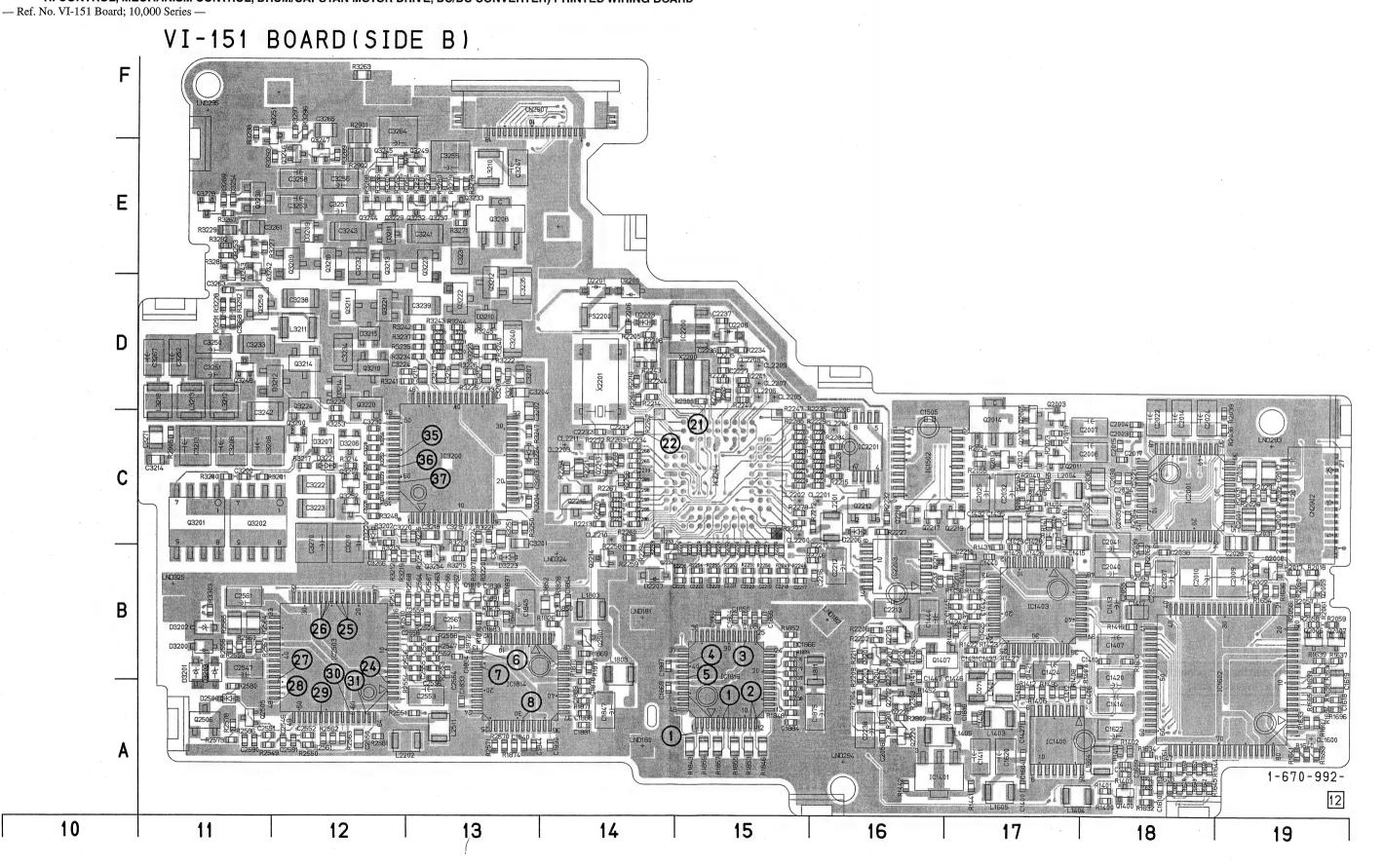
C1890 C1891

C2001

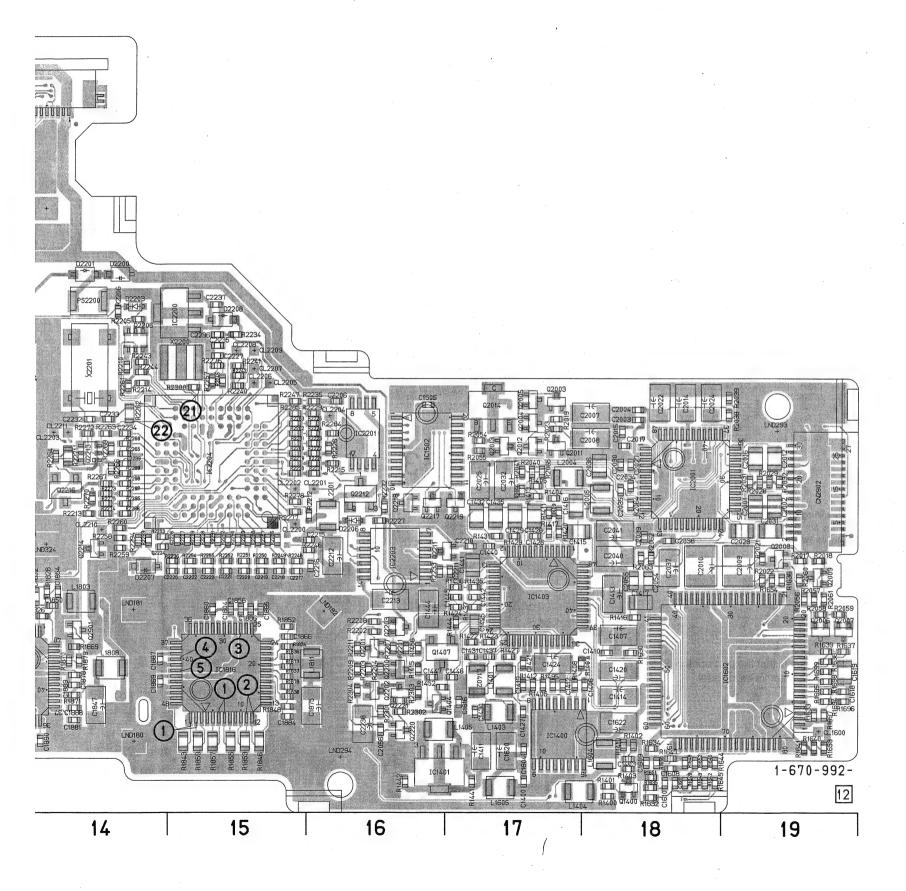
C2003 C2004 C2007

C2008

C2010 B-C2012 C-C2014 C-C2015 C-



SOR,) PRINTED WIRING BOARD

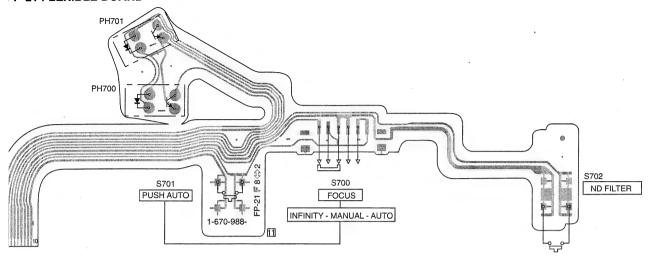


/۱-	151	BOA	RD	(SIDE	B)
, , , ,		DUM			$\boldsymbol{\omega}_{I}$

CH00 A-17 C2016 C-19 C2019 C-13 L-1401 A-17 C2024 E-12 A-17 C2024 E-13 A-17 C2025 E-13 A-18 A-17 C2025 E-13 C2025 E-13 A-18 A-18

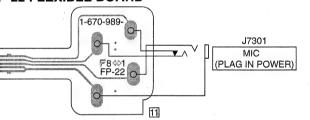
-21 (FOCUS SW) FLEXIBLE BOARD

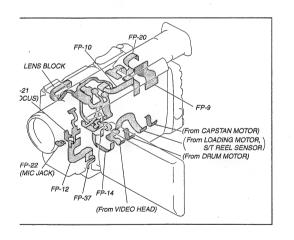
FP-21 FLEXIBLE BOARD

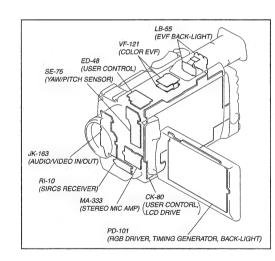


-22 (MIC JACK) FLEXIBLE BOARD

P-22 FLEXIBLE BOARD







MA-333 BOARD

C7300 A-1	I C7348 B-2	R7313 A
C7301 D-3	C7350 B-2	R7314 A
C7302 A-2	C7351 D-2	R7315 A
C7305 A-2	C7352 D-3	R7316 A
C7306 A-2	C7353 D-2	R7317 A
C7307 A-3	C7354 D-3	R7318 B
C7308 A-2	C7355 D-2	R7319 B
C7309 A-3	C7356 C-3	R7320 B
C7310 A-2	C7357 D-3	R7321 B
C7312 A-3	07007	R7322 B
C7313 A-2	CN7300 E-1	R7323 C
C7314 A-3	CN7301 E-3	R7324 B
C7315 A-2	CN7302 E-2	R7326 B
C7316 A-3	CN7303 E-3	R7327 B
C7317 A-1	CN7304 D-1	R7328 B
C7318 A-2	CN7305 D-1	R7329 D
C7319 A-3	0117000 D	R7331 B
C7320 A-3	D7300 A-1	R7332 B
C7321 A-1	D7304 E-2	R7335 B-
C7322 B-1	D7305 E-2	R7337 B-
C7323 B-1	27000 22	R7339 B-
C7324 A-1	FB730 A-3	R7342 B-
C7325 B-3	FB731 A-3	R7343 B-
C7326 B-3	15101 110	R7344 B-
C7327 D-1	IC7301 B-2	R7345 C-
C7328 B-2	IC7302 D-2	R7346 B-
C7329 B-1	IC7303 D-2	R7347 B-
C7330 B-1	10.000	R7348 B-
C7331 B-3	Q7300 D-1	R7350 D-
C7332 B-3	Q7301 B-1	R7351 D-
C7333 B-3	Q7302 B-1	R7352 D-
C7336 B-3	Q7303 B-1	R7353 D-
C7337 B-3	Q7304 D-3	R7354 D-
C7338 B-2		R7355 D-
C7339 B-3	R7302 A-3	R7356 D-
C7340 B-2	R7303 A-1	R7357 D-
C7341 B-3	R7304 A-1	R7358 D-
C7342 B-3	R7305 E-2	R7359 D-
C7343 B-2	R7306 E-2	R7360 D-
C7344 C-1	R7309 A-2	R7361 E-
C7345 C-3	R7310 A-2	R7362 E-
C7346 C-3	R7311 E-2	R7363 D-
C7347 B-3	R7312 E-2	

For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

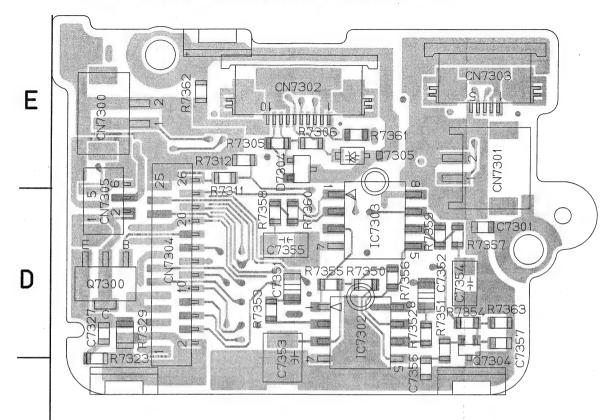
Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

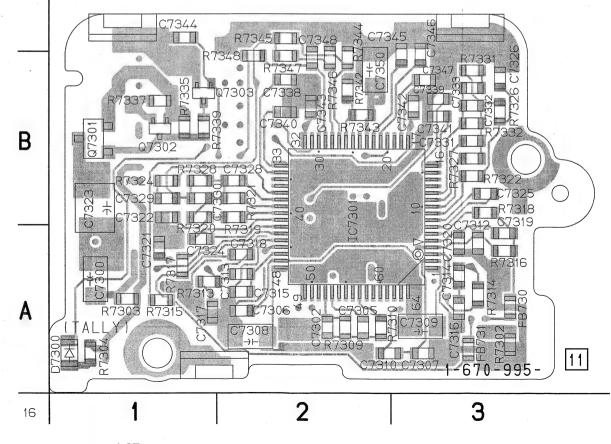
MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD

- Ref. No. MA-333 Board; 10,000 Series -

MA-333 BOARD(SIDE A)



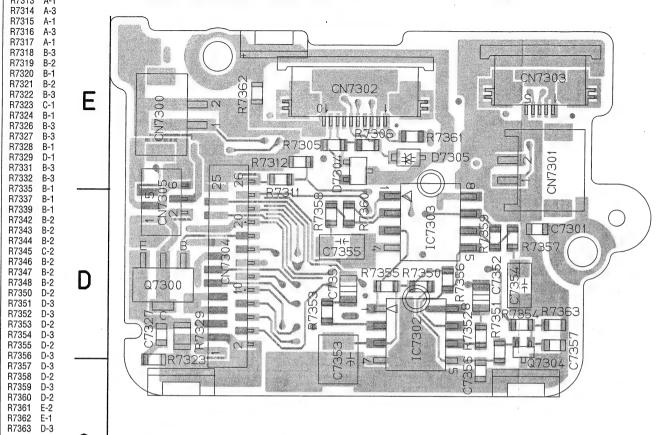
MA-333 BOARD (SIDE B)



MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD

- Ref. No. MA-333 Board; 10,000 Series -

MA-333 BOARD(SIDE A)



or printed wiring boards

This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram. Chip parts

MA-333 BOARD

C7348 B-2

C7348 B-2 C7350 B-2 C7351 D-2 C7352 D-3 C7353 D-2 C7354 D-3 C7355 D-2 C7356 C-3 C7357 D-3

CN7300 E-1 CN7301 E-3

CN7302 E-2 CN7303 E-3 CN7304 D-1 CN7305 D-1

D7300 A-1

D7304 E-2 D7305 E-2 FB730 A-3

FB731 A-3

IC7301 B-2 IC7302 D-2 IC7303 D-2

Q7300 D-1 Q7301 B-1 Q7302 B-1 Q7303 B-1

Q7304 D-3 R7302 A-3 R7303 A-1 R7304 A-1 R7305 E-2 R7306 E-2 R7309 A-2 R7310 A-2 R7311 E-2 R7312 E-2

R7313 A-1

C7300 A-1

C7301 D-3
C7302 A-2
C7305 A-2
C7306 A-2
C7307 A-3
C7308 A-2
C7309 A-3
C7310 A-3
C7311 A-3
C7313 A-2
C7314 A-3
C7315 A-2
C7314 A-3
C7315 A-2
C7318 A-2
C7319 A-3
C7319 A-3
C7321 B-1
C7322 B-1
C7323 B-1
C7323 B-1
C7324 B-3
C7327 D-1
C7328 B-2
C7340 B-3
C7327 B-1
C7328 B-2
C7329 B-1
C7330 B-1
C7331 B-3
C7327 B-3
C7327 D-1
C7328 B-2
C7349 B-3
C7340 B-2
C7341 B-3
C7338 B-3
C7338 B-3
C7338 B-3
C7338 B-3
C7338 B-3
C7338 B-3
C7340 B-2
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C7344 C-1
C7345 C-3
C7346 C-3
C7347 B-3

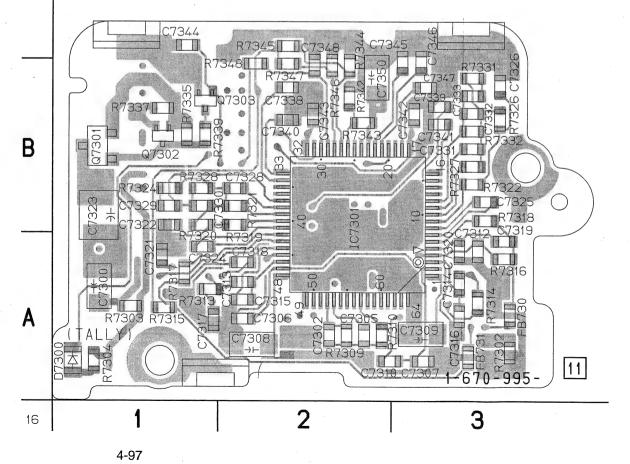
TER

Transistor



There are few cases that the part printed on this diagram isn't mounted in this model.

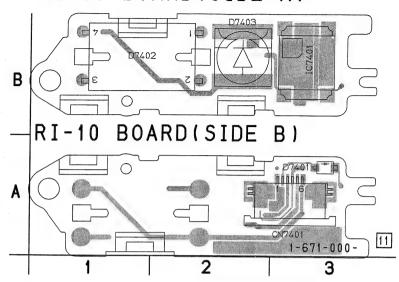
MA-333 BOARD (SIDE B)



RI-10 (SIRCS RECEIVER) PRINTED WIRING BOARD

- Ref. No. RI-10 Board; 10,000 Series -

RI-10 BOARD(SIDE A)

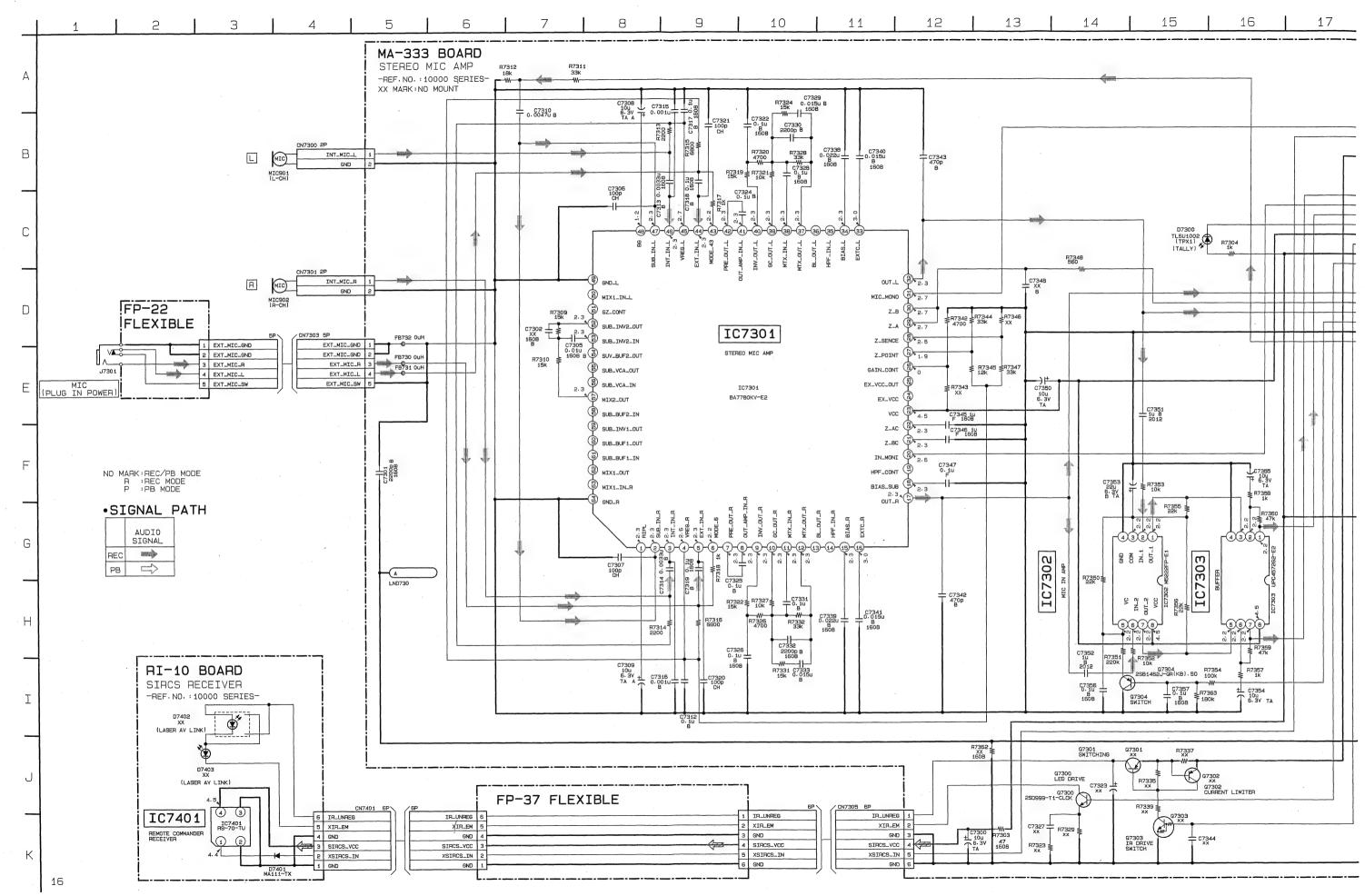


RI-10 BOARD

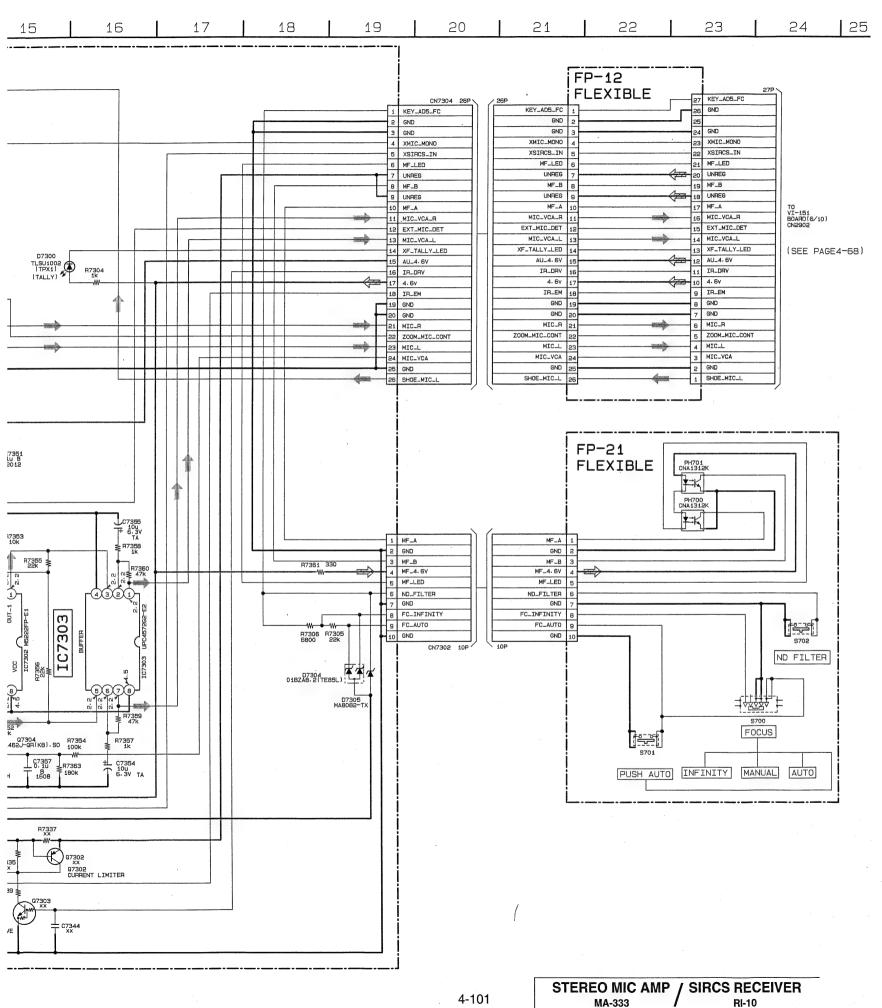
CN7401 A-3

D7401 A-3 D7402 B-1 D7403 B-2

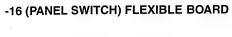
IC7401 B-3

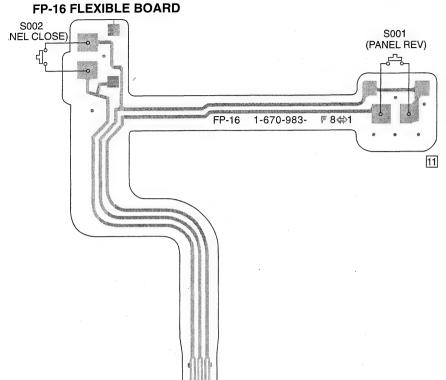


DSR-PD100/PD100P

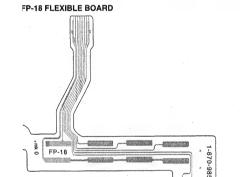


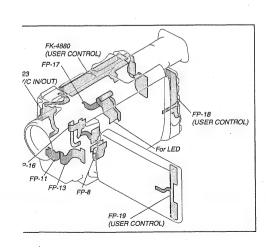
RI-10

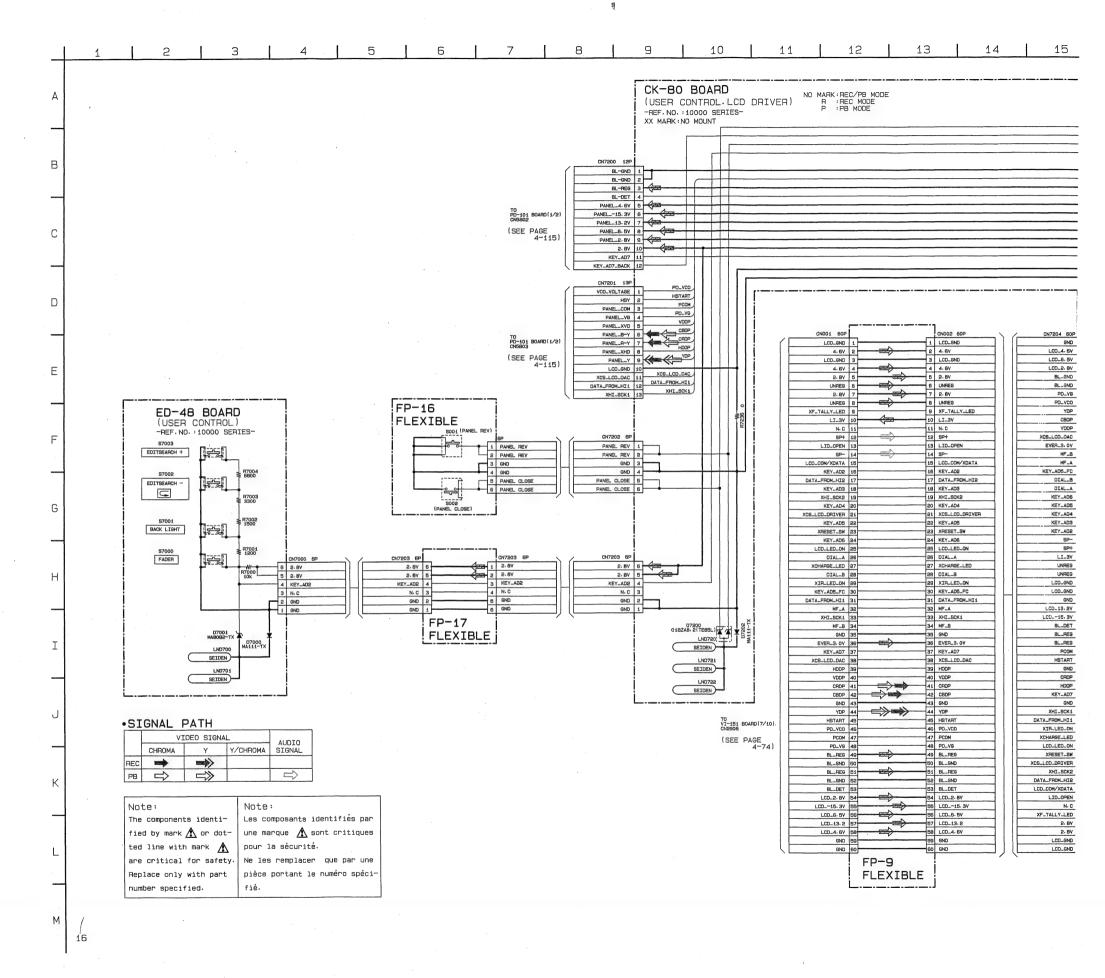




·18 (USER CONTROL) FLEXIBLE BOARD







12 13 | 14 | 15 | 16 | 17 I 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29. 18 **|** 19 **|** 20 21 30 **|** 31 **|** 32 RK:REC/PB MODE :REC MODE :PB MODE AUTO LOCK AUTO LOCK - MANUAL POSITION - HOLD S7205 MEMORY INDEX S7209 MEMORY DELETE ₽7229 22k R7225 22k R7210 1200 R7215 1500 R7219 3300 R7222 6800 R7224 22k R7200 100 FP-18 FLEXIBLE R7230 6800 A7205 10k 2 WHT BAL 3 SHUTTER WHT BAL SHUTTER S7211 MEMORY PLAY R7202 10k X3S_LED X3S_LED 5 **D** 5 3S_LED_2-8V 3S_LED_2.8V 4 EXPOSURE 3 F R7232 1500 R7233 1200 GND 2 R7211 1200 R7216 1500 R7220 3300 早 SFL/ PUSH EXEC S103 EXPOSURE S102 PROGRAM AE S101 WHT BAL S100 SHUTTER SPEED 97228 10k D7207 01BZAS-2(TEB5L) S7208 0FF ← 70% → 100% PICTURE S7202 TITLE DIGITAL EFFECT GND 600 LCD_4.6V 58 LCD_6.5V 56 R7223 22k CN7211 68P 2D_GND 1 4.6V 2 2D_GND 3 4.6V 4 1 LCD_GND 2 4.6V 3 LCD_GND R7221 008 R7218 3300 R7217 1500 97212 1200 R7203 10k 1,44 00 4 4.6V LCD_2.8V 54 S7213 RESET BL_GND 52 BL_GND 50 PD_VG 48 PD_VCO 46 2.8V 5 UNREG 6 6 UNREG 7 2.8V 00 UNREG B Y_LED 9 LI_3V 10 B UNREG 00 PO_VCO 46 YOP 44 CBOP 42 VDDP 9 XF_TALLY_LED 10 LI_3V 2 BL_GND 00 N. C 11 SP+ 12 D_OPEN 13 SP- 14 XDATA 15 Y_AD2 16 M_HIZ 17 SEG2 SEG3 VODP 40 XCS_LCD_DAC
XCS_LCD_DAC
38
EVR_3.0V 36
EVR_5.9 34
MF_A 32
KEY_ADS_FC 30
DZALB, 82 11 N.C 8500 00 SEG4 SEG5 SEG6 SEG7 14 SP-SEIDEN
LND723
SEIDEN
LND724
SEIDEN
LND725 00 15 LCD_COM/XDATA 16 KEY_AD2 17 DATA_FROM_HI2 18 KEY_AD3 19 XHI_SCK2 20 KEY_AD4 21 XCS_LCD_DRIVER 8 SEG5
9 SEG6
-10 SEG7
-11 SEG8
-12 SEG9
-13 SEG10 00 \boxtimes DIAL_B 28 SEGB SEG9 VPP2 B2
VCC 81 SND
VCC 81 SND
A21 SD SND
A22 SD SND
A24 SND
A25 SD SND
A26 SND
A27 SND
A27 SND
A28 SND
A38 SND
A48 SND Y_AD3 18 D7206 01BZAB. 2(TEB5L) 00 _SCK2 19 Y_AD4 20 HIVER 21 KEY_AD5 22 KEY_AD5 22 KEY_AD4 20 KEY_AD3 18 KEY_AD2 15 SP- 14 SP+ 12 LI_3V 10 LNREG A SEG10 00 SEG11 SEG12 SEG13 13 SEG10
14 SEG11
15 SEG12
16 SEG13
17 SEG14
18 SEG1
19 SEG16
20 SEG15
21 COM3
22 COM4 22 KEY_AD5
23 KRESET_SW
24 KEY_AD6
26 LOD_LED_ON
26 DIAL_A
27 KCHARSE_LED
28 DIAL_A
27 KCHARSE_LED
38 KIP_LED_ON
39 KEY_ADB_FC
31 DATA_FROM_HI
32 MF_A
33 MF_AG
34 MF_B
35 6ND
35 6ND
37 KEY_AD7
38 KCS_LCD_DAC
39 HODP
40 VDDP
41 CRUP
41 CRUP 00 SEG14 00 SEG1 SEG16 00 1114,111 ВТ7200 SEG15 D7204 01BZAB- 2(TEB5L) UNREG 8 V/L RICH 00 07203 MAB082-T LCD_GND 4 ~LCD_GND 2 GND 59 LCD_13-2V 57 LCD_15-3V 55 BL_DET 53 MF_A 32 SCK1 33 MF_B 34 GND 35 L3.0V 36 Y_AD7 37 MEMORY CARD SLOT 00 BL_REG 51 (SEE PAGE 4-46) 07201 2SB1122-ST-TD Q7200-7201 LCD +B SWITCH BL_REG 49 PCOM 47 7.6 7.6 8.1 7.6 7.6 7.6 8.1 7.6 7.6 9 8.1 7.60 9 8.1 7.7204 0.9 9 97200 2801819A-GRS-TX PCOM R7206 DDAC 38 HDDP 39 VDDP 40 CROP 41 CBDP 42 GND 43 YDP 44 START 45 HSTART 45 00 GND 43 CRDP 41 HDDP 39 ₹ R7213 47k 00 SEG15 SEG15 SEG13 SEG12 SEG12 R7204 10k KEY_AD7 37 oò 42 CBDP

43 GND

44 YDP

45 HSTART

46 PD_VCO

47 PCOM

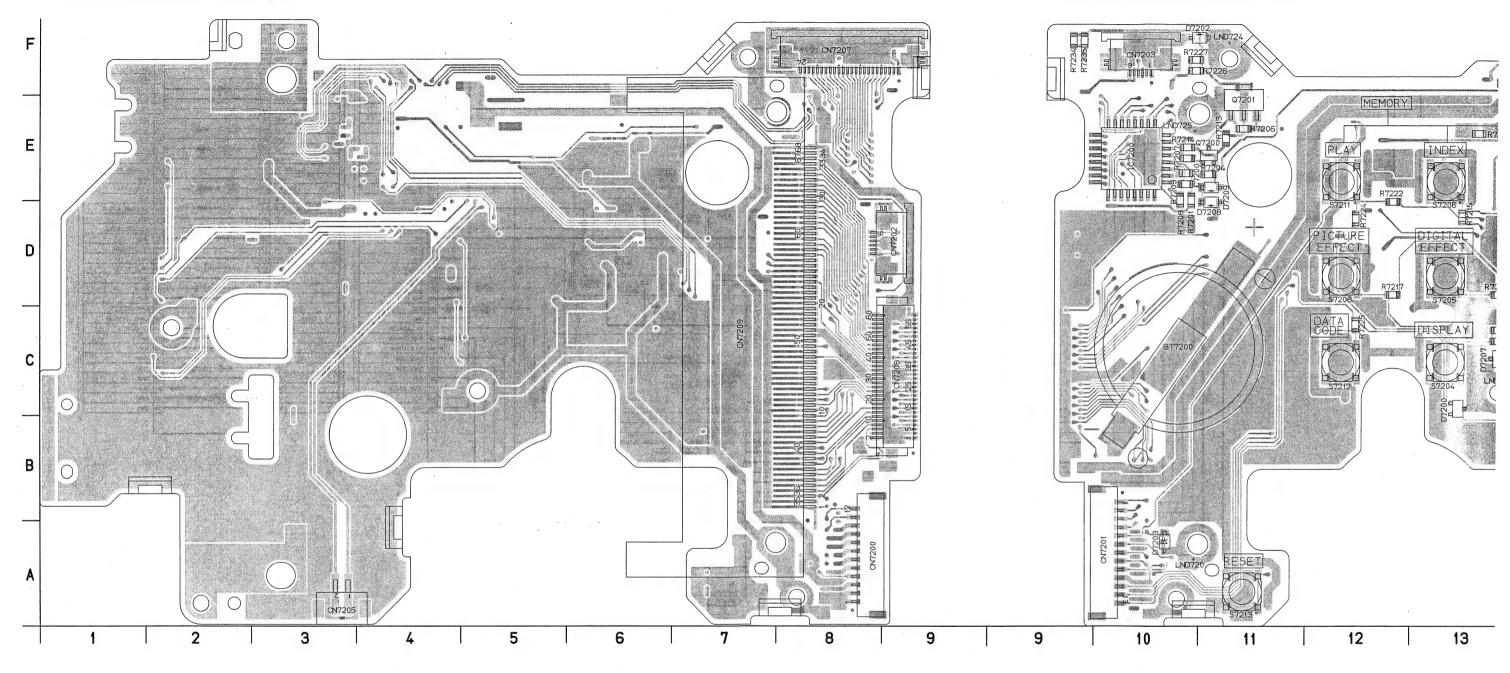
48 PD_VG

49 BL_REG R7214 4700 GND 35 XHI_SCK1 33 R7207 XHI_SCK1 00 DATA_FROM_HI1 DATA_FROM_HI1 31 PD_VG 48 XIR_LED_ON 29 XCHARGE_LED 27 SEG18 SEG17 SEG15 SEG15 SEG14 SEG12 SEG12 00 D7209 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 LCD_LED_ON LCD_LED_ON 2 00 L_REG 49 XRESET_SW 2 SEG10 SEG9 SEG8 SEG7 SEG5 SEG5 SEG4 SEG3 XCS_LCD_DRIVER L_REG 51 50 BL_GND 51 BL_REG XCS_LCD_DRIVER SEG9 CD 1.4
SEG8 CD 1.4
SEG7 TD 1.4
SEG5 CD 1.4
SEG5 CD 1.4
SEG5 CD 1.4
SEG5 CD 1.4 00 XHI_SCK2 XHI_SCK2 IC7200 DATA_FROM_HI2 L_GND 52 L_DET 53 L_2.8V 54 -15.3V 55 L_6.5V 56 L_13.2 57 52 BL_GND 53 BL_DET 54 LCD_2.8V 55 LCD_-15.3V DATA_FROM_HI2 00 LCD_COM/XDATA VCC 17
READY 16
WE 15
A14 14 LID_OPEN : IC7200 BU9729K-E2 00 XHI_SCK2 DATA_FROM_HI2 56 LCD_6.5V 57 LCD_13.2 58 LCD_4.6V XF_TALLY_LED 9
2.8V 7
2.8V 5 A14 14 GND A13 13 AB 00 AB A9 GND AB 12 AB 11 GND 59 GND 60 LCD_GND 3 XCS C/XD COM1 COM2 COM3 COM3 COM4 SEG1 A11 10 OE OE A10 B CE1 7 FP-9 FLEXIBLE CE1 7 D7 6 D6 D6 D6 D5 4 D4 D4 D3 D3 2 GND 1 COM/XDAT/ COM2 COM2 COM4 COM4 SEG1 SEG2 00 00

CK-80 (USER CONTROL) PRINTED WIRING BOARD — Ref. No. CK-80 Board; 10,000 Series —

CK-80 BOARD(SIDE A)

CK-80 BOARD(SIDE B)



4-107

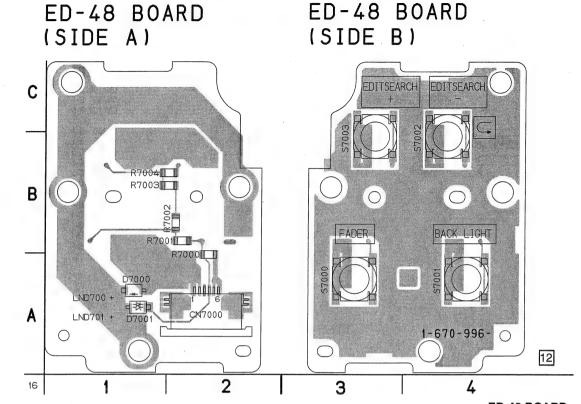
B) Zaraninin hayanan harinin hali I R7236 INDEX DELETE HOLD PICTURE SEL/PUSE EXEC DISPLAY I∐R7216 END SEARCH **€** □ ANTI GROUND SHOOTING 革 5SEC 12 1-670-998-15 12 13 14 16 17 18

CK-80 BOARD

CK-80 BOA	RD	
BT7200 C-10 C7200 E-10 C7200 E-10 C7200 E-10 CN7201 A-8 CN7201 D-9 CN7202 D-9 CN7203 F-10 CN7205 A-3 CN7207 F-8 CN7208 C-9 CN7209 C-7 CN7210 D-17 D7200 C-13 D7201 D-16 D7202 F-10 D7203 A-10 D7203 A-10 D7204 E-15 D7206 D-16 D7207 C-13 D7208 E-11 D7201 C-16 D7212 C-16 D7214 D-16 D7215 D-16 CN7200 E-11 CN7200 E-11 CN7200 E-10 CN7200 E-11 CN7201 E-11 CN	R7213 R7214 R7215 R7216 R7217 R7218 R7219 R7221 R7222 R7223 R7224 R7225 R7226 R7227 R7228 R7229 R7230 R7231 R7232 R7233 R7233 R7234 R7235 R7230 S7201 S7202 S7203 S7204 S7205 S7207 S7206 S7207 S7208 S7207 S7208 S7207 S7210 S7211 S7212 S7213 S7214 S7215 S7219	E-11 E-10 D-13 C-13 C-13 C-12 B-16 D-14 C-12 B-16 E-12 B-16 E-16 E-16 E-16 E-16 E-16 C-14 B-16 C-14 B-16 C-12 E-14 B-16 E-15 B-16 E-17 B-17 B-17

ED-48 (USER CONTROL) PRINTED WIRING BOARD

- Ref. No. ED-48 Board; 10,000 Series -



ED-48 BOARD

CN7000 A-2 D7000 A-1 D7001 A-1

R7000 A-2 R7001 B-2 R7002 B-2 R7003 B-2 R7004 B-2

S7000 A-3

S7000 A-3 S7001 A-4 S7002 B-4 S7003 B-3

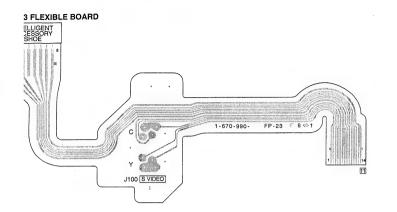
ED-48 (USER CONTROL) SE-75 JK-163 (AUDIO/VIDEO IN/OUT) RI-10 (SIRCS RECEIVER) MA-333 CK-80 (STEREO MIC AMP) (USER CONTORL PD-101 (RGB DRIVER, TIMING GENERATOR, BACK-LIGHT)

For printed wiring boards

• This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.

23 (S VIDEO) FLEXIBLE BOARD



JK-163 BOARD

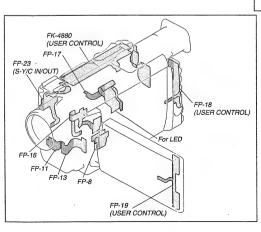
07100 07101 07102 07103 07104	C-4 D-4 C-5 D-4 C-1	FB715 FB716 FB717 FB718	C- C- C-
CN7100 CN7101 CN7102	B-2 C-1	J7100 J7101 J7102	C-: C-: D-:
07100 07102 07103 07104 07105	B-4 B-1 C-5 D-5 C-5	L7100 L7101 L7102 L7103 L7104	C-: C-: C-: C-:
B7106 B710 B711 B712 B713 B714	C-5 B-4 C-4 B-1 D-1 C-1	R7102 VDR711 VDR714 VDR715 VDR717 VDR718	C-8 B-8 D-4

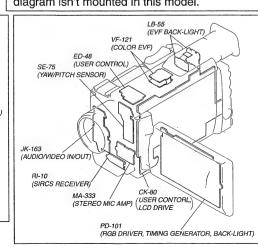
For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts



There are few cases that the part printed on this diagram isn't mounted in this model.





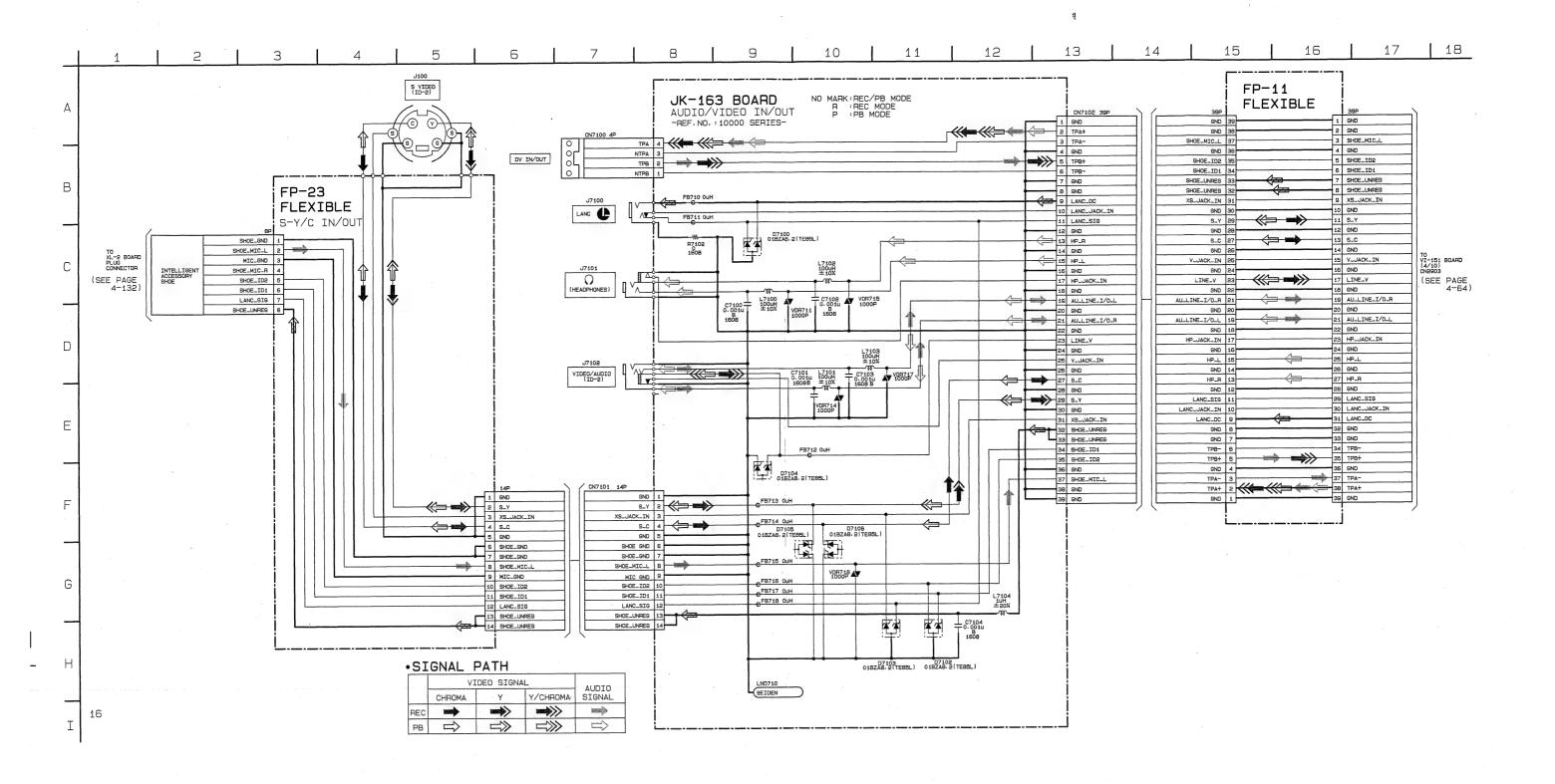
JK-163 (AUDIO/VIDEO IN/OUT) PRINTED WIRING BOARD — Ref. No. JK-163 Board; 10,000 Series — JK-163 BOARD JK-163 BOARD (SIDE B) (SIDE A) AUDIO/VIDEO (ID-2) D HEADPHONE LANC 0 LND710 FB717 00 В DV IN/OUT Α 1-670-997-16 2 3 5

SHOE_MIC_L
MIC_GND
SHOE_MIC_R

SHOE_ID2 SHOE_ID1 LANC_SIG SHOE_UNREG

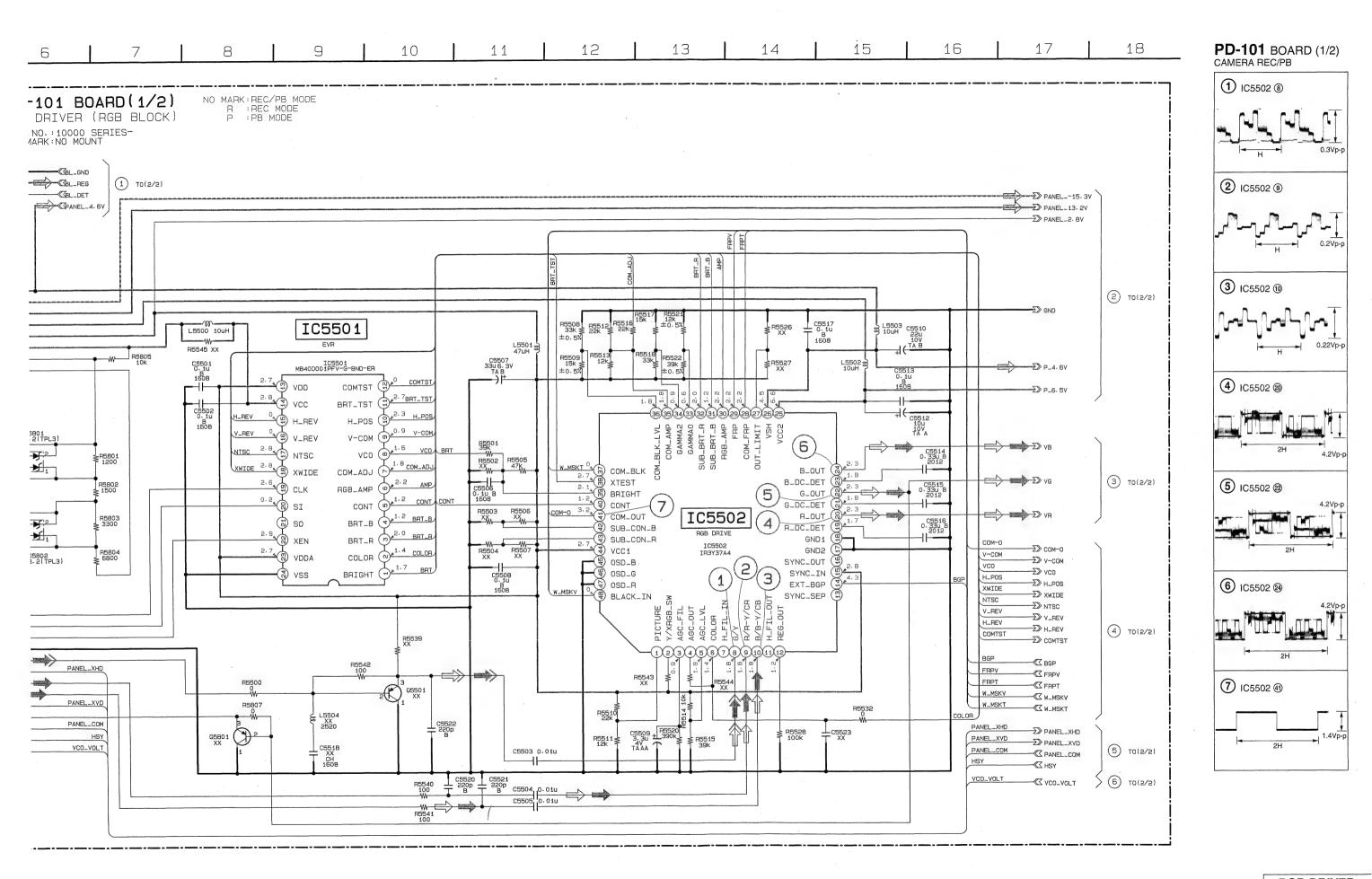
(SEE PAGE 4-132)

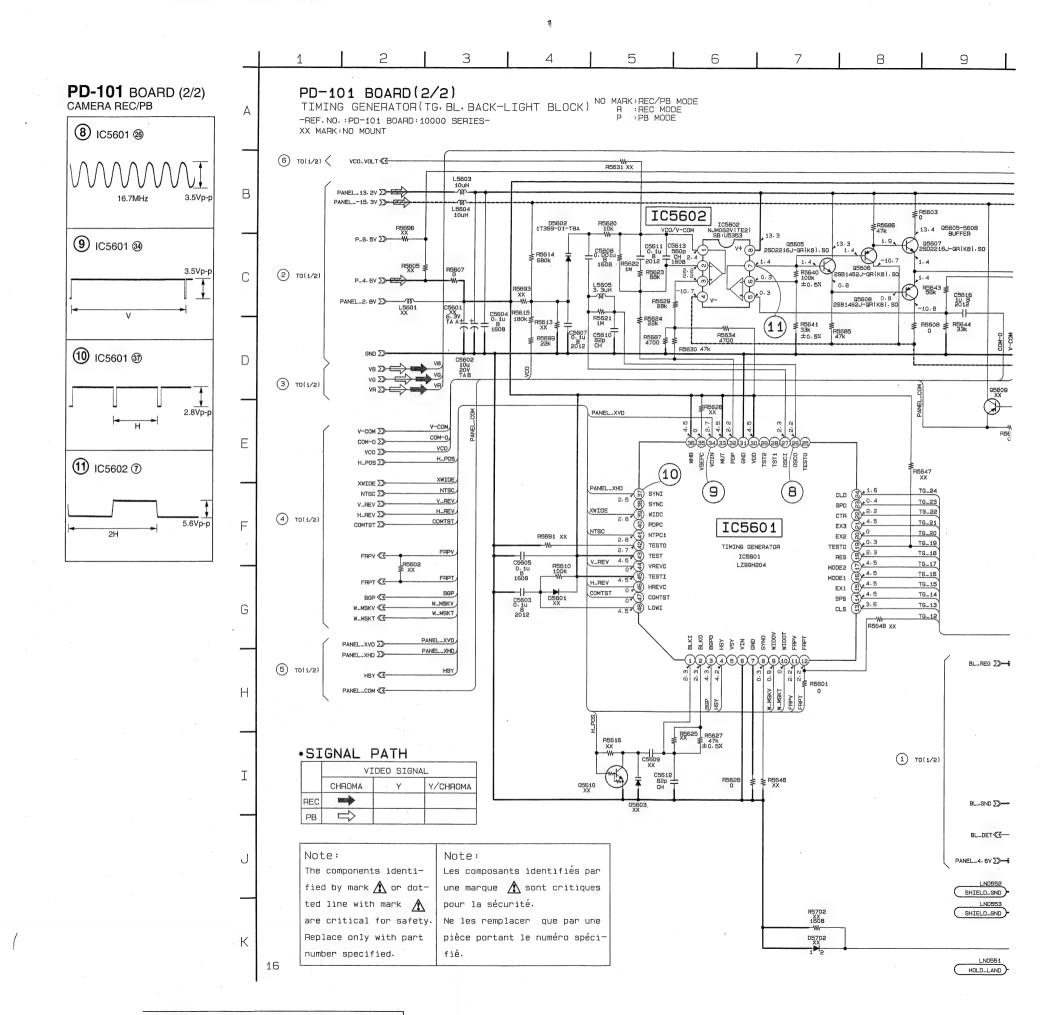
16

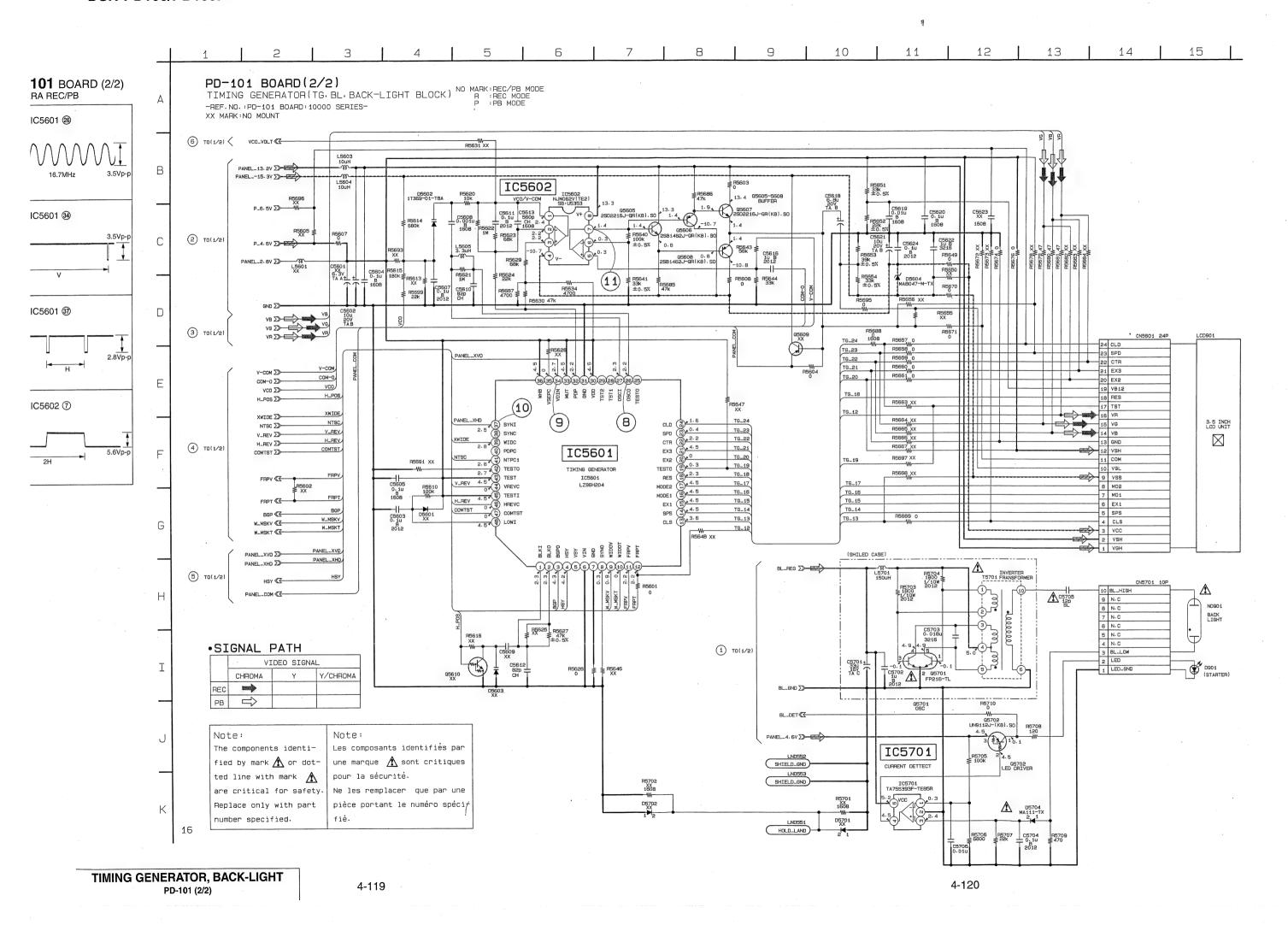


4-114

For schematic diagram • Refer to page 4-121 for PD-101 printed wiring board. Refer to page 4-121 for FP-19 flexible board. 3 5 6 4 8 9 10 11 12 14 13 PD-101 BOARD(1/2) NO MARK: REC/PB MODE А : REC MODE : PB MODE RGB DRIVER (RGB BLOCK) -REF.NO.:10000 SERIES-XX MARK:NO MOUNT - CBL_GND SBL_REG (1) TO(2/2) -≪3BL_DET В PANEL_4. 6V BL_GND BL_GND BL_REG BL_DET PANEL_4. 6V TO CK-BO BOARD PANEL_-15.3V PANEL_13. 2V (SEE PAGE4-103) PANEL_6.5V L5500 10uH R5512 R5516 22k ≥ 22k≥ IC5501 PANEL_2.8V 2.8V R5545 XX FP-19 FLEXIBLE KEY_AD7 R5509 15k ≱ ±0.5% IC5501 MB40D001PFV-G-BND-ER -REF.NO.:10000 SERIES-KEY_AD7_BACK \square S503 VDD COMTST LCD BAIGHT BRT_TST H_POS 5502 D5801 01ZAB. 2(TPL3) V-COM LCD BRIGHT (b) چې NTSC ₹R5801 1200 VCO 6 KEY_AD7 KEY_AD7 6 W_MSKT 0 COM_BLK E XWIDE COM_ADJ B_OUT KEY_AD7_S1 KEY_AD7_S1 B_DC_DET GND CLK 2.1 BRIGHT GND RGB_AMP G_OUT 0.2 1.2 CONT GND GND : CONT 3 CONT_ 00M-0 3.2 COM_OUT G_DC_DET KEY_AD7_S2 KEY_AD7_S2 R5503 R5506 .1.2 BRT_ R5803 3300 IC5502 KEY_AD7_S3 (1) SO R_OUT KEY_AD7_S3 BRT_B 3 SUB_CON_B R_DC_DET RGB DRIVE SUB_CON_R
VCC1 VOLUME + (N) XEN BRT_R GND1 R5504 XX GND1 (E)
GND2 (E)
SYNC_OUT (B)
SYNC_IN (B)
EXT_BGP (E)
SYNC_SEP (E) 1.4 COLOF 2.7 D5802 D1ZAB. 2(TPL3) N VDDA COLOR 9 OSD_B 9 OSD_G BRIGHT (-) S500 OSD_R BLACK_IN VOLUME -XHI_SCK1 DATA_FROM_HI1 XCS_LCD_DAC R5539 XX GND G PANEL_Y PANEL_XHD TO CK-80 BOARD PANEL XHD **□**>> R5543 XX PANEL_R-Y 2 Q5501 XX PANEL_B-Y (SEE PAGE4-103) PANEL_XVD PANEL_XVD L5504 XX 2520 PANEL_VG R5510 PANEL_COM PANEL_COM Q5801 2 HSY R5528 100k Н VCO_VOLT C551B XX CH 1608 VCO_VOLT C5503 0.01u •SIGNAL PATH CN5803 13P C5520 C5521 220p C5504 B C5505 0.01u VIDEO SIGNAL CHROMA Y/CHROMA REC 16 РΒ



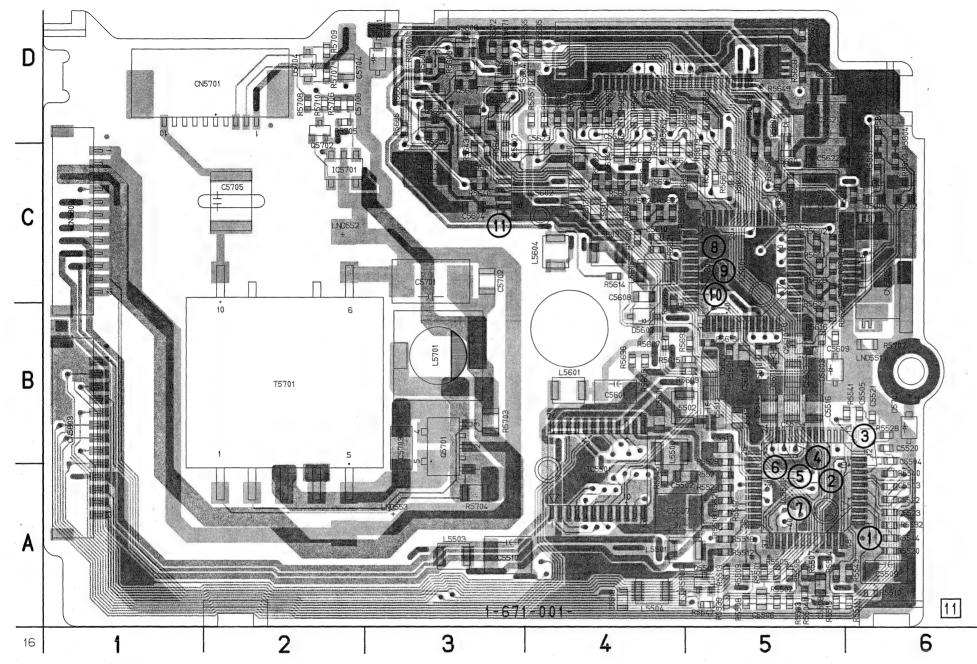




PD-101 (RGB DRIVER, TIMING GENERATOR, BACK-LIGHT) PRINTED WIRING BOARD

- Ref. No. PD-101 Board; 10,000 Series -

PD-101 BOARD (SIDE A)

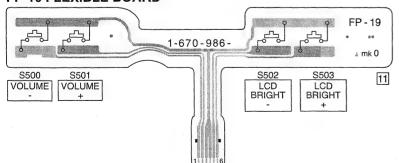


PD-101 BOARD

C5501	B-4	C5706	D-2	R5501	A-5	I R5623	C-4	I R5682	D-4
C5502	A-4			R5502	A-5	R5624	C-4	R5683	D-4
C5503	A-6	CN5601	D-4	R5503	A-5	R5625	B-5	R5684	D-4
C5504	B-6	CN5701	-	R5504	A-5	R5626	C-4	R5685	D-3
C5505	B-6	CN5802		R5505	A-5	R5627	B-5	R5686	D-3
							C-5	R5687	C-4
C5506	A-5	CN5803		R5506	A-5	R5628			C-5
C5507	A-4	CN5805	C-6	R5507	A-5	R5629	C-4	R5688	
C5508	A-5			R5508	A-5	R5630	C-4	R5691	B-5
C5509	A-6	D5601	B-5	R5509	A-5	R5631	C-4	R5693	B-5
C5510	A-3	D5602	B-4	R5510	A-6	R5634	C-4	R5695	D-4
C5512	B-5	D5603	B-5	R5511	A-6	R5640	C-3	R5696	B-4
C5513	B-5	D5604	D-5	R5512	A-5	R5641	C-3	R5697	C-4
C5514	B-5	D5701	D-3	R5513	A-5	R5643	C-3	R5699	B-5
C5515	B-5	D5702	B-6	R5514	A-5	R5644	C-3	R5701	D-3
C5516	B-5	D5704	D-2	R5515	A-5	R5646	C-5	R5702	B-6
C5517	B-5	D5801	C-6	R5516	A-5	R5647	C-5	R5703	B-3
C5518	A-4	D5802	C-6	R5517	A-5	R5648	C-5	R5704	A-3
C5520	B-6	D3002	0-0	R5518	A-5	R5649	D-5	R5705	D-2
		ICEE04	Α 4				C-5	R5706	D-2
C5521	B-6	IC5501	A-4	R5520	A-6	R5650			
C5522	A-6	1C5502	A-5	R5521	A-5	R5651	C-4	R5707	D-2 D-2
C5523	A-6	IC5601	C-5	R5522	A-5	R5652	C-4	R5708	
C5601	B-4	IC5602	C-4	R5526	A-5	R5653	C-5	R5709	D-2
C5602	C-3	IC5701	C-2	R5527	A-5	R5654	C-5	R5710	D-2
C5603	B-5			R5528	B-6	R5655	D-3	R5801	C-6
C5604	C-3	L5500	B-4	R5532	A-6	R5656	D-4	R5802	D-6
C5605	B-5	L5501	A-4	R5539	A-5	R5657	D-4	R5803	C-6
C5607	B-5	L5502	B-4	R5540	A-6	R5658	D-4	R5804	D-6
C5608	C-4	L5503	A-3	R5541	B-6	R5659	D-4	R5805	Ç-6
C5609	B-5	L5504	A-4	R5542	A-5	R5660	D-4	R5807	C-3
C5610	C-4	L5601	B-4	R5543	A-6	R5661	D-4		
C5611	C-4	L5603	C-4	R5544	A-6	R5663	C-4	T5701	B-2
C5612	C-5	L5604	C-4	R5545	A-4	R5664	C-4		
C5613	C-4	L5605	C-4	R5601	C-5	R5665	D-5		
C5616	D-3	L5701	B-3	R5602	C-5	R5666	C-5	}	
C5618	C-5	20101		R5603	D-3	R5667	C-5		
C5619	C-4	Q5501	A-5	R5604	D-4	R5668	D-5	1	
C5620	C-4	Q5605	D-3	R5605	B-4	R5669	C-5		
C5621	D-5	Q5606	D-3	R5607	B-4	R5670	C-5		
C5622	C-5	Q5607	D-3	R5608	D-3	R5671	D-3		
C5623	C-4	Q5608	D-3	R5610	B-5	R5672	D-3		
C5624	D-5	Q5609	D-3	R5613	B-5	R5673	D-5		
C5701	C-3	Q5610	B-5	R5614	C-4	R5674	D-5	}	
C5702	C-3	Q5701	B-3	R5615	B-5	R5676	C-5		
C5703	B-3	Q5702	D-2	R5616	B-5	R5678	D-4		
C5704	D-2	Q5801	D-3	R5620	C-4	R5679	C-5		
C5705	C-2			R5621	C-4	R5680	D-5	1	
		R5500	A-4	R5622	C-4	R5681	D-4		

FP-19 (USER CONTROL) FLEXIBLE BOARD

FP-19 FLEXIBLE BOARD

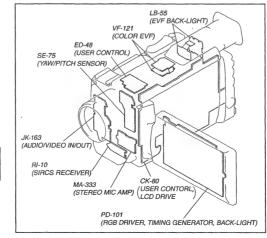


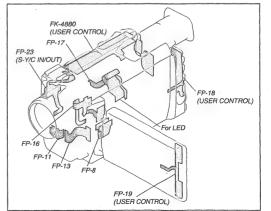
For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.



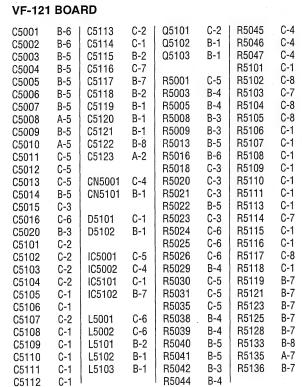


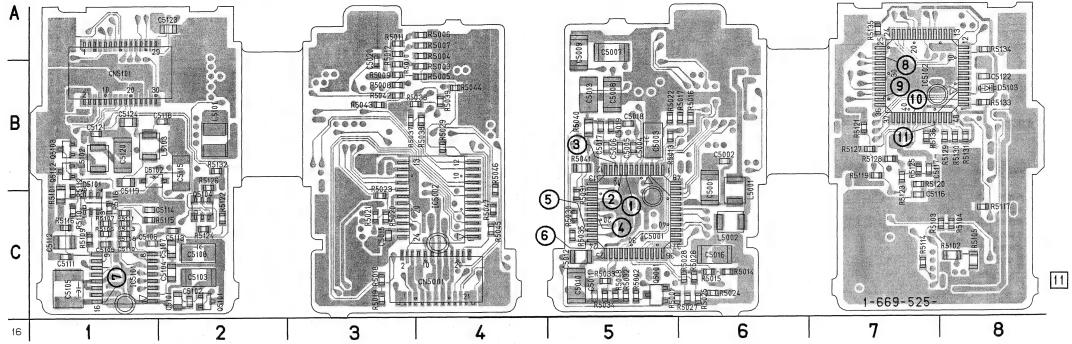
VF-121 (COLOR EVF) PRINTED WIRING BOARD

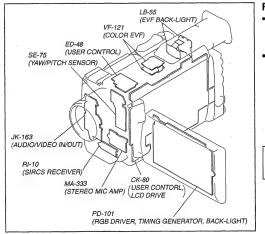
- Ref. No. VF-121 Board; 10,000 Series -

VF-121 BOARD (SIDE A)

VF-121 BOARD (SIDE B)





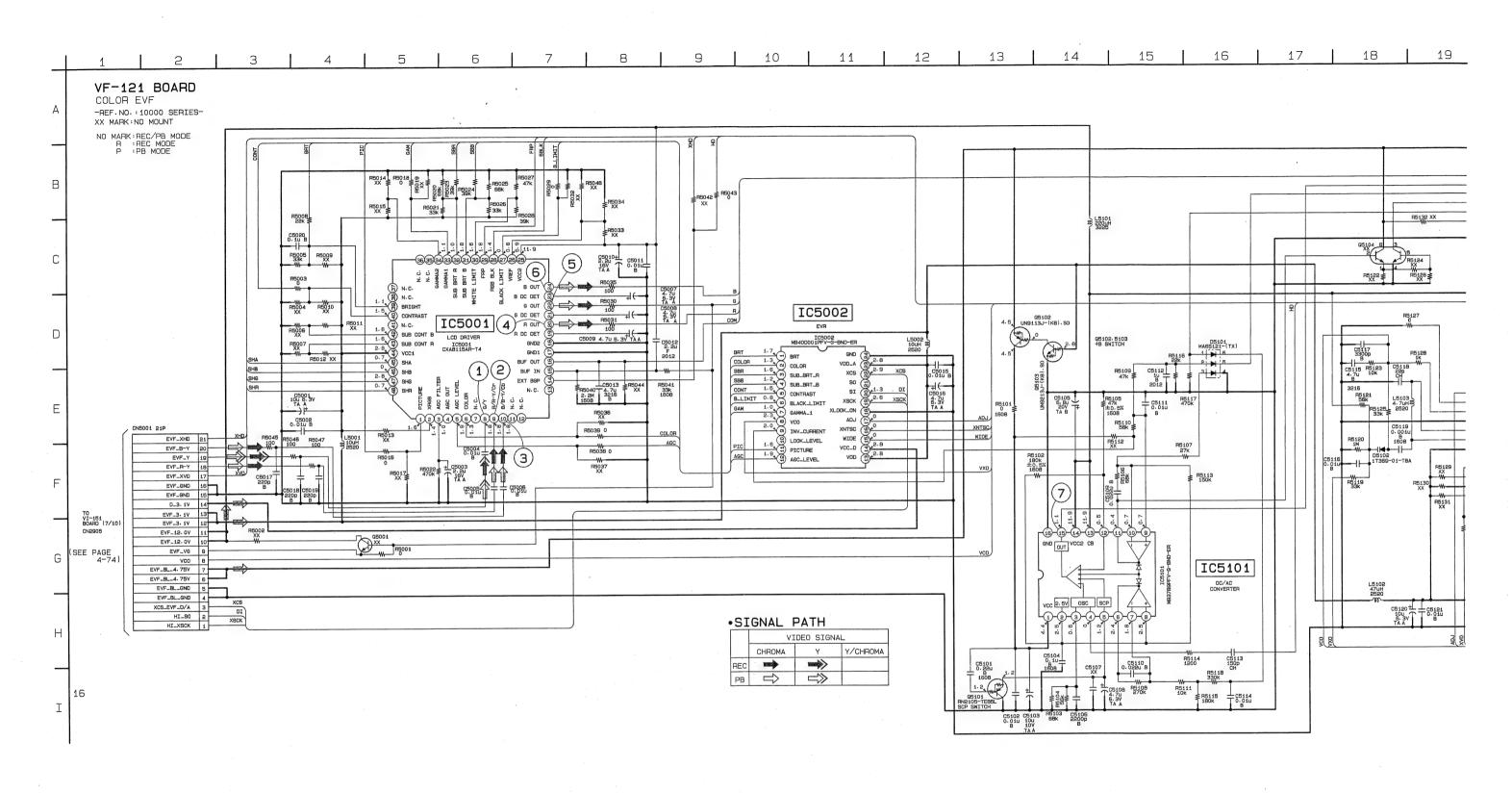


For printed wiring boards

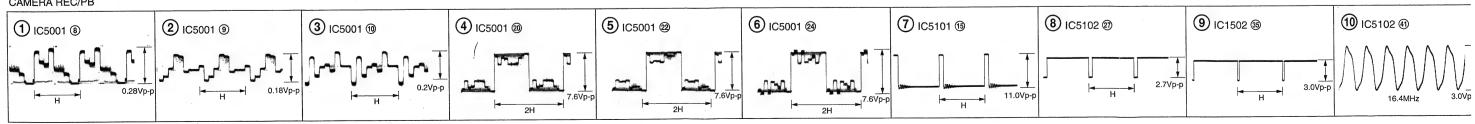
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode $\frac{C}{C}$ $\stackrel{6.5.4}{\stackrel{1}{\circ}}$ $\stackrel{6.5.4}{\stackrel{1}{\circ}}$ $\stackrel{6.5.4}{\stackrel{1}{\circ}}$ $\stackrel{1}{\stackrel{1}{\circ}}$ $\stackrel{1}{\stackrel{\stackrel{1}{\circ}}}$ $\stackrel{1}{\stackrel{\stackrel{1}{\circ}}}$

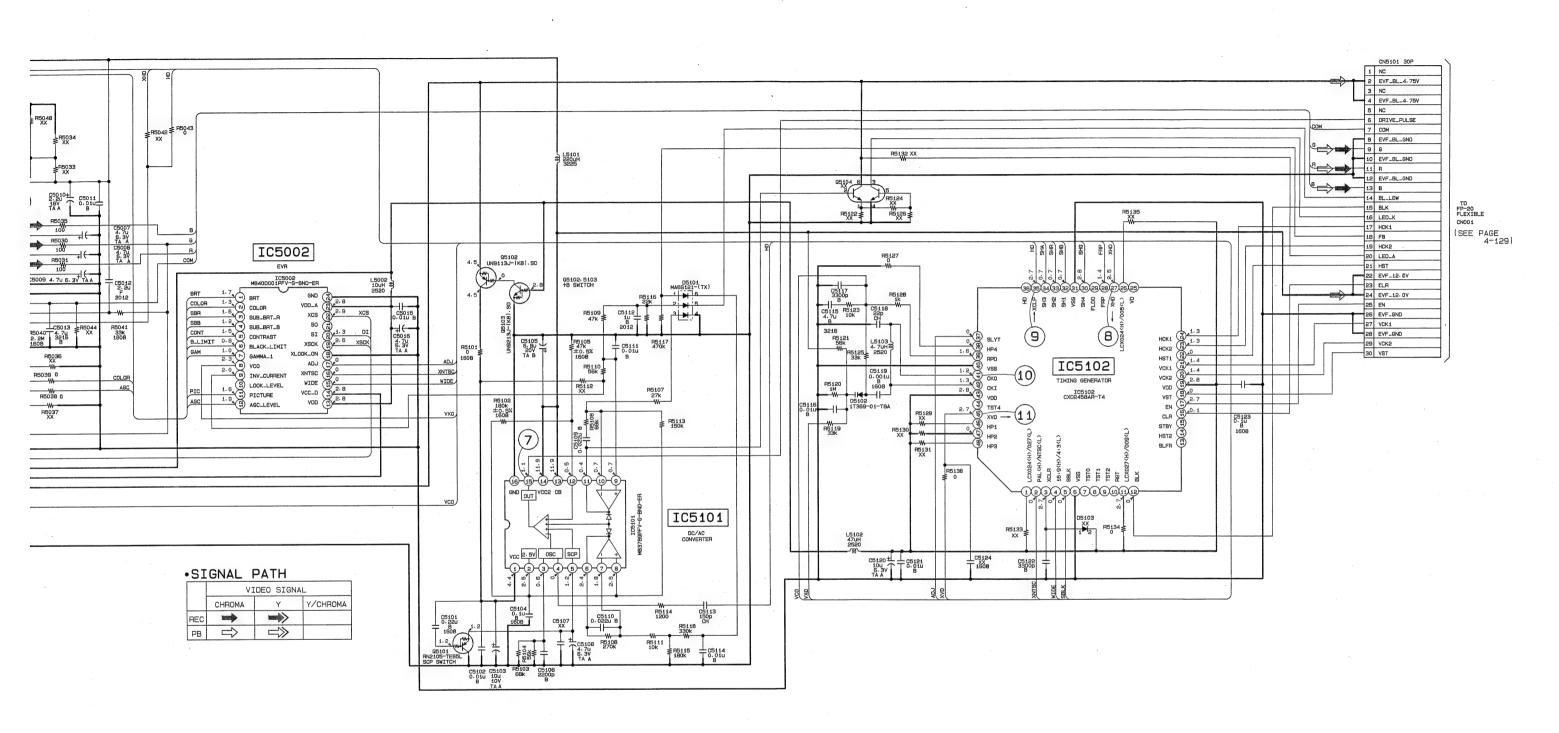
There are few cases that the part printed on this diagram isn't mounted in this model.

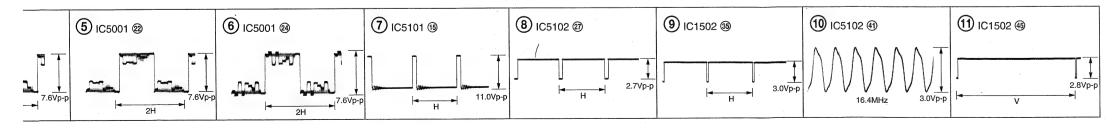


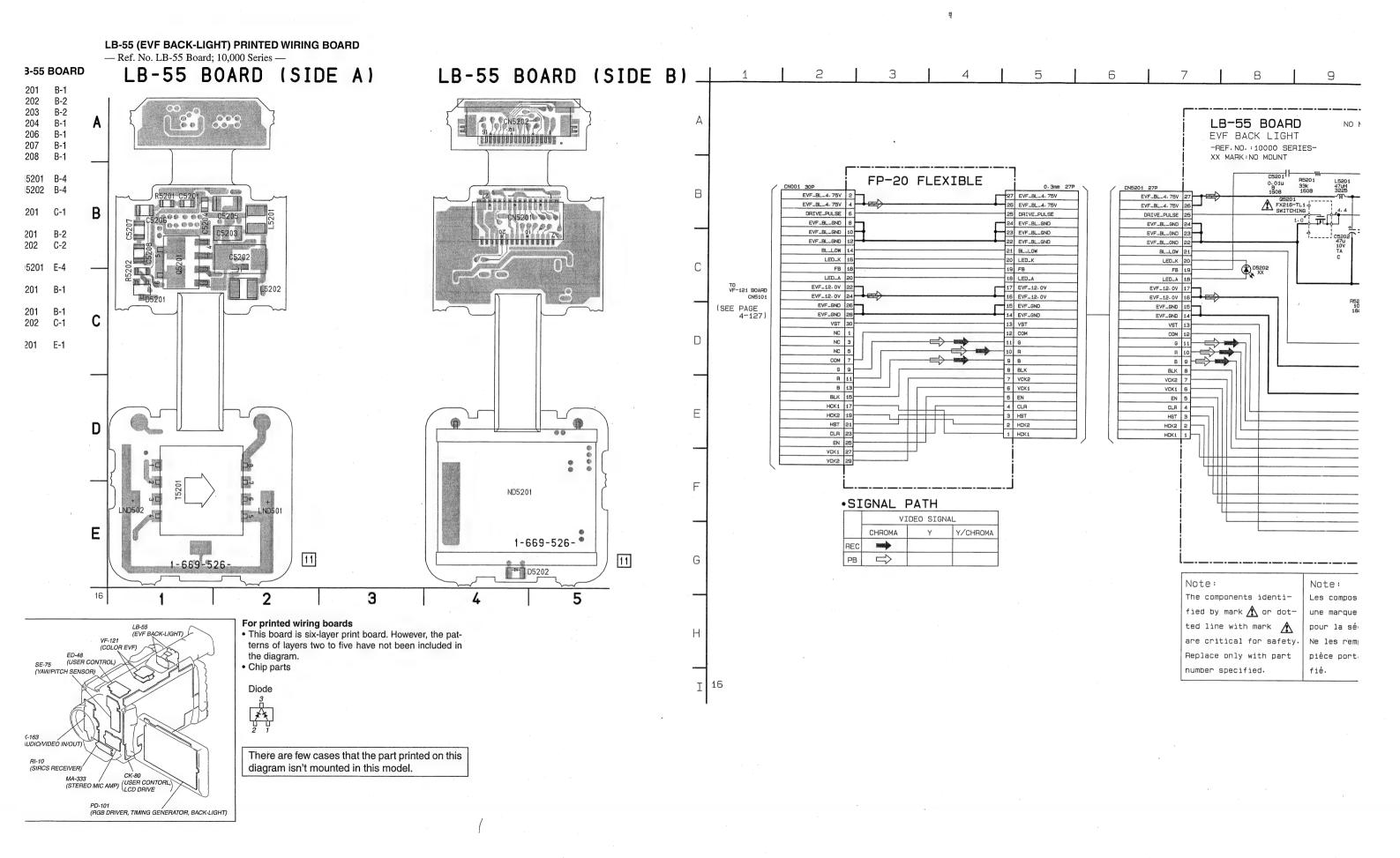


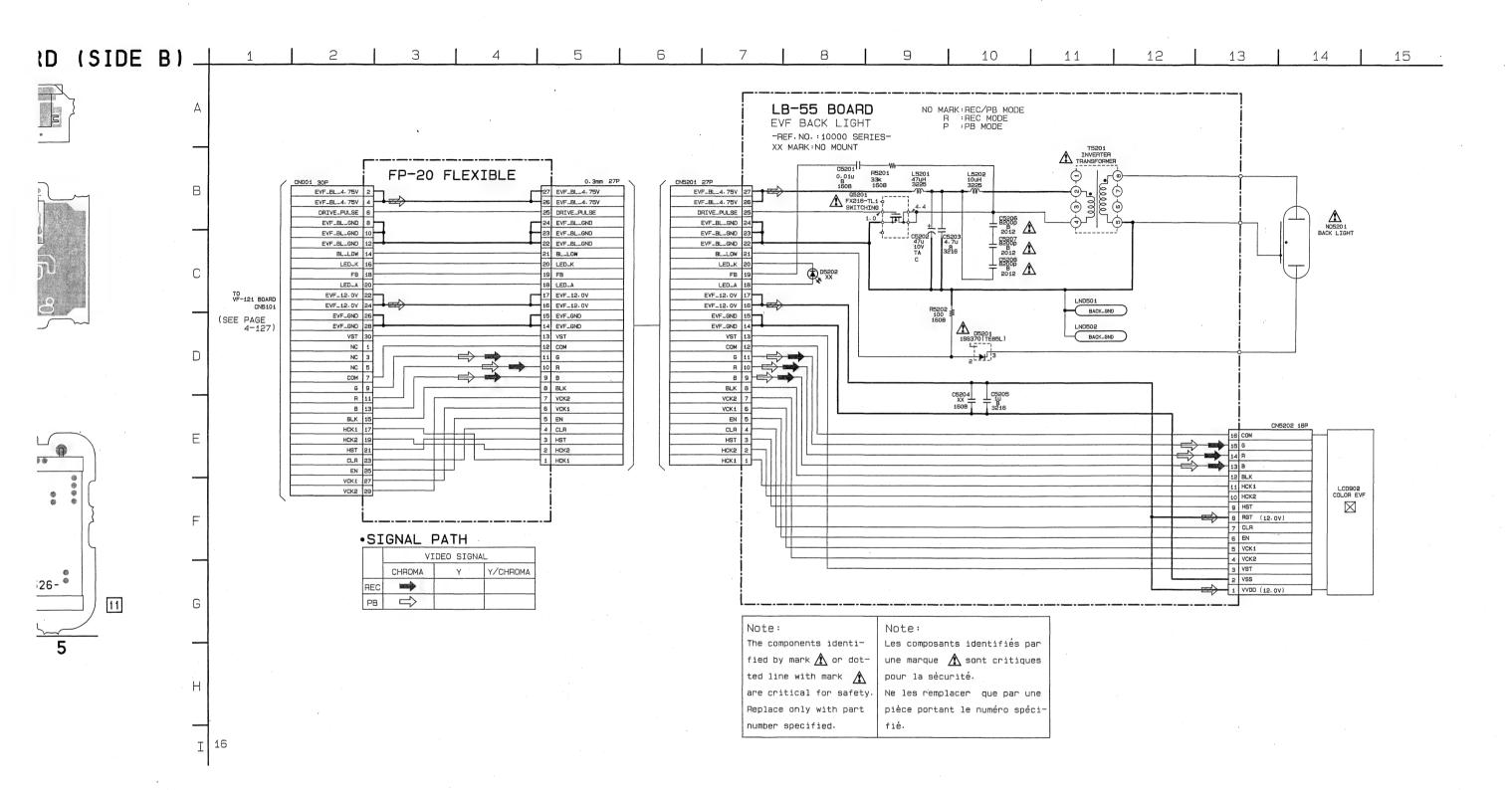


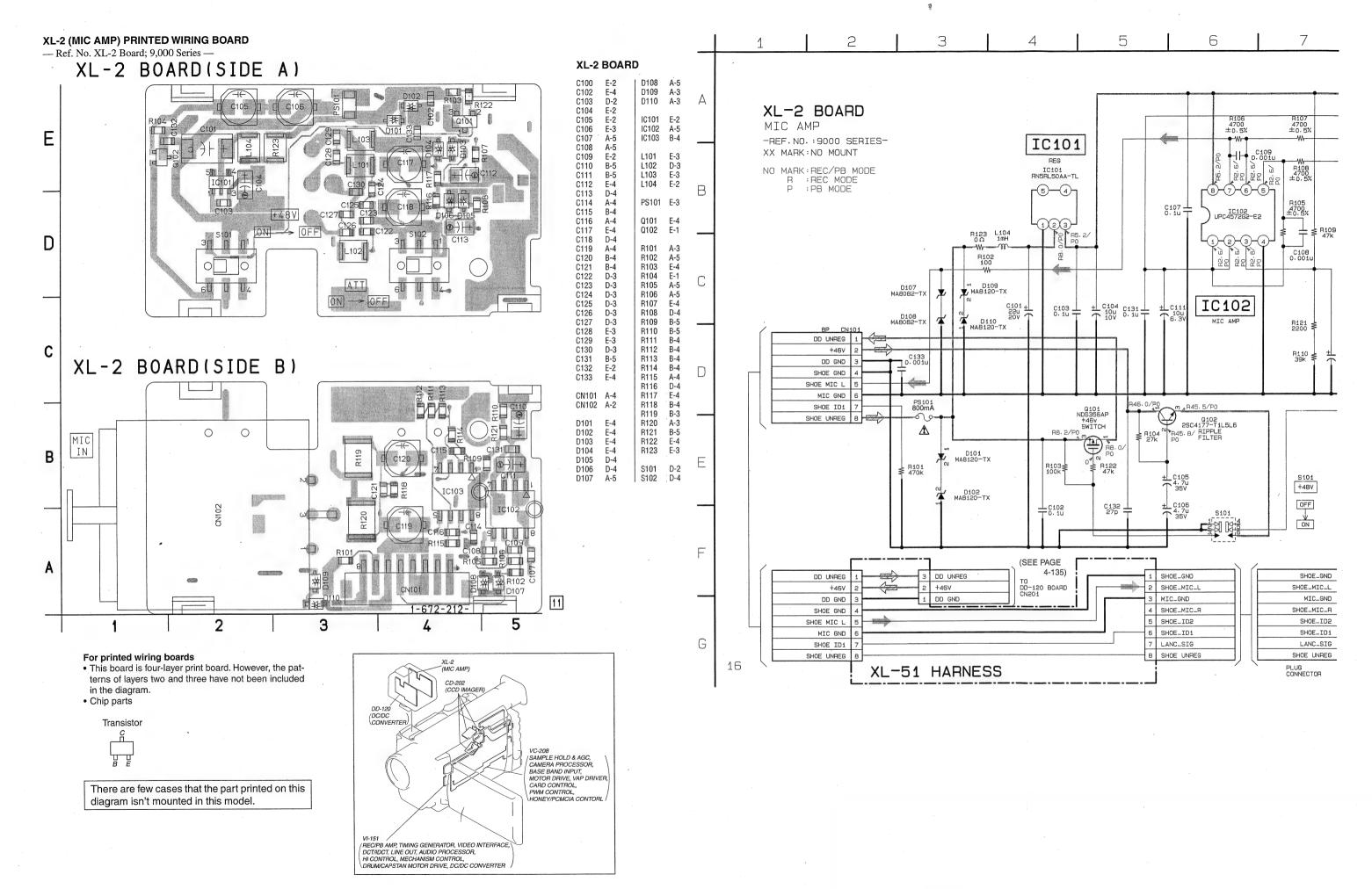
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26

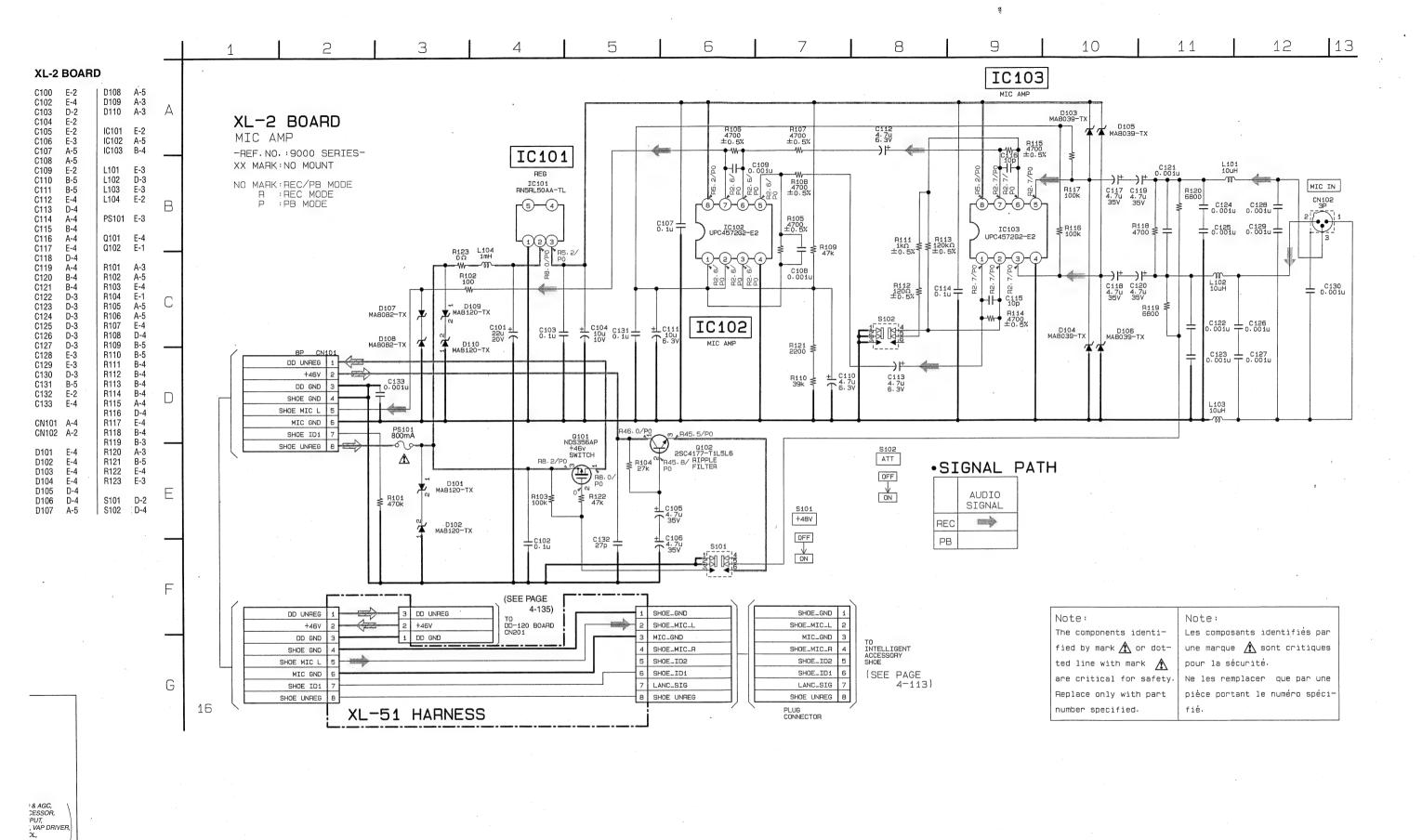












MIC AMP

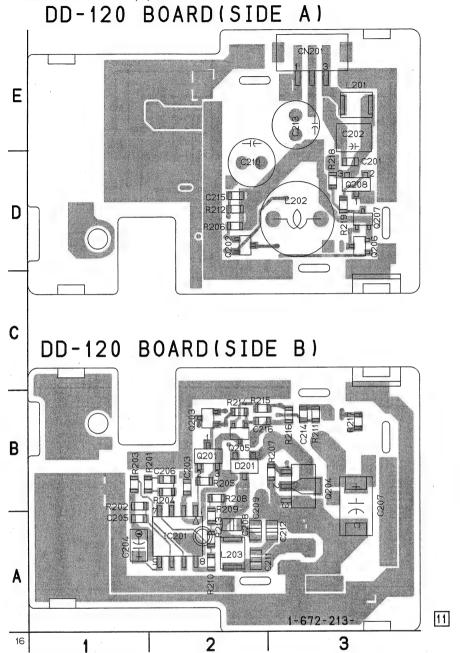
IL, IA CONTORL

DD-120 BOARD

Q202 D-2 Q203 B-2 Q204 B-3 Q205 B-2 Q206 D-3 Q207 D-3 Q208 D-3 C201 C202 C203 C204 C205 C206 C207 C208 C209 C210 C211 C212 C213 C214 C215 C216 D-3 E-3 B-2 A-1 A-1 B-2 B-3 A-2 D-2 A-3 E-3 B-3 D-2 R201 R202 R203 R204 R205 B-1 B-1 R203 B-1 R204 B-2 R205 B-2 R206 D-2 R207 B-3 R208 B-2 R209 A-2 R210 A-2 R211 B-3 R212 D-2 R213 A-2 R214 B-2 R215 B-2 R216 B-3 R217 B-3 R218 D-3 R219 D-3 B-2 CN201 E-3 D201 B-2 IC201 A-2 L201 E-3 L202 L203 A-2 Q201 B-2

DD-120 (DC/DC CONVERTER) PRINTED WIRING BOARD

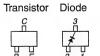
— Ref. No. DD-120 Board; 9,000 Series —



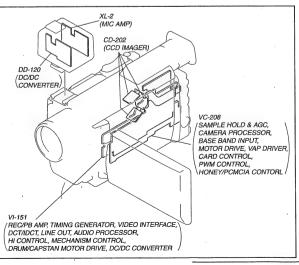
5 6 3 4 DD-120 BOARD NO MARK:REC/PB MODE R :REC MODE P :PB MODE DC/DC CONVERTER А -REF.NO,:9000 SERIES-XX MARK: NO MOUNT R201 2200 В IC201 HO. 2/PO H219 47k SWITCHING REG. .RB. 2/P0 Q202 2SC4177-T1L5L6 BUFFER CN201 RB. 2/P DD UNREG +46V (SEE PAGE DD GND BO. 6/PI 4-132) \square 0203 2SA1611T1-M5M6 BUFFER C201 十 C203 0. 1u C202 10u 20V R8. 2/P0 R214 R0. 5/ 470k P0 Q207 2SC4177-T1L5L6 Ε 16

For printed wiring boards

- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts

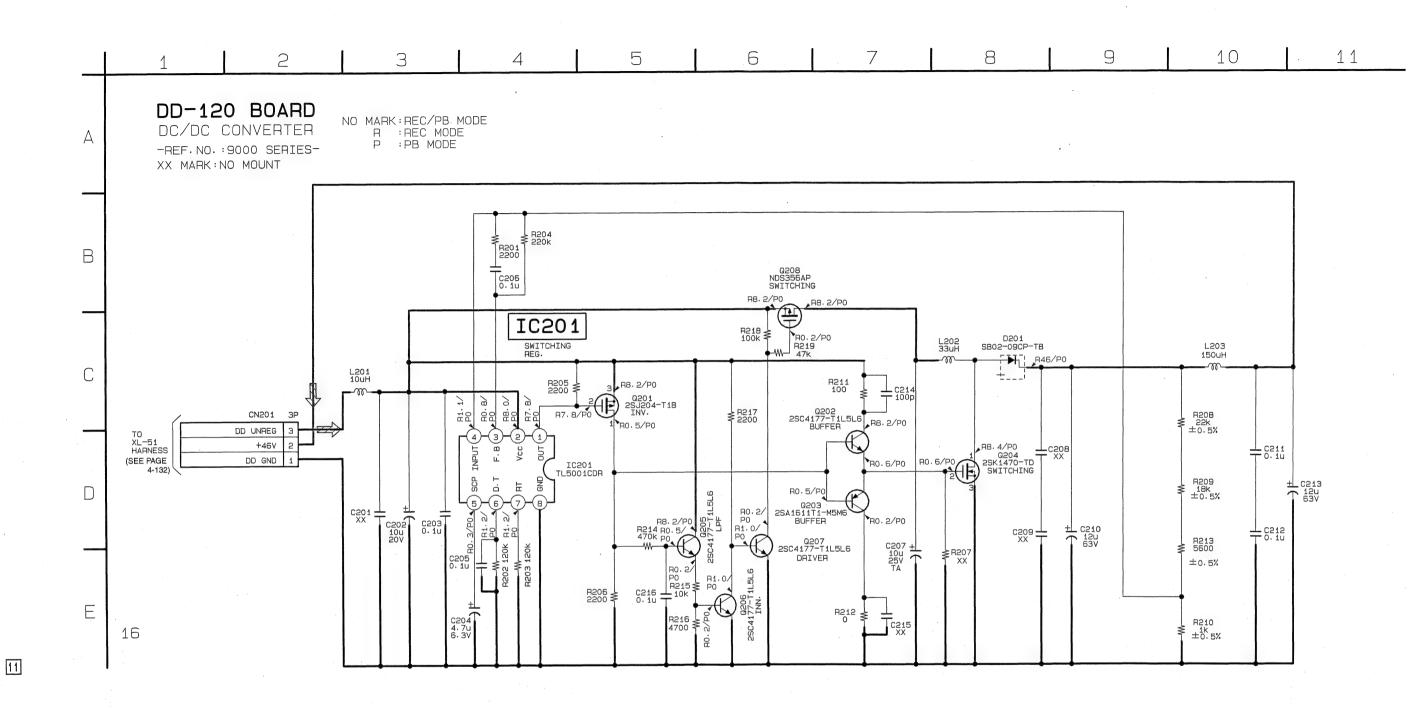


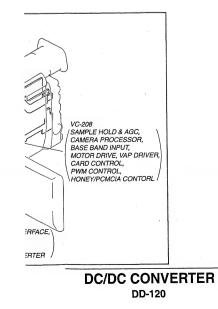
There are few cases that the part printed on this diagram isn't mounted in this model.



DC/DC CONVERTER
DD-120

4-135





4-135

SECTION 5 ADJUSTMENTS

5-1. CAMERA SECTION ADJUSTMENT

NTSC model: DSR-PD100 PAL model: DSR-PD100P

1-1. PREPARATIONS BEFORE ADJUSTMENT (CAMERA SECTION)

1-1-1. List of Service Tools

Oscilloscope

• Regulated power supply

• Vectorscope

Color monitor

• Digital voltmeter

Ref. No.	Name	Parts Code	Usage
J-1	Filter for color temperature correction (C14)	J-6080-058-A	Auto white balance adjustment/check White balance adjustment/check
J-2	ND filter 1.0 ND filter 0.3	J-6080-808-A J-6080-818-A	White balance check White balance check
J-3	Pattern box PTB-450	J-6082-200-A	
J-4	Color chart for pattern box	J-6020-250-A	
J-5	Adjustment remote commander (RM-95 upgraded). (Note 1)	J-6082-053-B	
J-6	Siemens star chart	J-6080-875-A	For checking the flange back
J-7	Clear chart for pattern box	J-6080-621-A	
J-8	CPC-8 jig	J-6082-388-A	For adjusting the video section For adjusting the LCD system For adjusting the viewfinder
J -9	Extension cable (60P, 0.5 mm)	J-6082-431-A	For extension between the VC-208 board (CN761) and the CK-80 board (CN7208)
J-10	Extension cable (100P, 0.5 mm)	J-6082-432-A	For extension between the VC-208 board (CN900) and the VI-151 board (CN2901)
J-11	Extension cable (39P, 0.3 mm)	J-6082-433-A	For extension between the JK-163 board (CN7102) and the VI-151 board (CN2903)
J-12	Cleaning fluid	Y-2031-001-0	
J-13	Wiping cloth	7-741-900-53	
J-14	Super fine applicator (made by NIPPON APPLICATOR (P752D))		
J-15	Mirror (Small oval type)	J-6080-840-A	
J-16	Screwdriver for tape path	J-6082-026-A	Tape path for adjusting tape guide
J-17	Torque driver	J-9049-330-A	
J-18	TG1 adjustment jig	J-6082-420-A	FWD position adjustment
J-19	Mode selector conversion board (C)	J-6082-417-A	
J-20	Tracking tape (XH2-1A1)(NTSC/PAL)	8-967-999-03	
J-21	Mini DV torque cassette	J-6082-360-A	For FWD torque, REV torque and FWD back tension
J-22	Mode Selector II	J-6082-282-A	For all operating
J-23	Mode Selector II ROM	J-6082-314-D	Corresponds to C mechanism (Note 2)
J-24	Bending stick	J-6082-419-A	

Note 1: If the microprocessor IC in the adjustment remote commander is not the new microprocessor (UPD7503G-C56-12), the pages cannot be switched. In this case, replace with the new microprocessor (8-759-148-35).

Note 2: ROM for version upgrading to allow use of the mode selector II with the C mechanism.

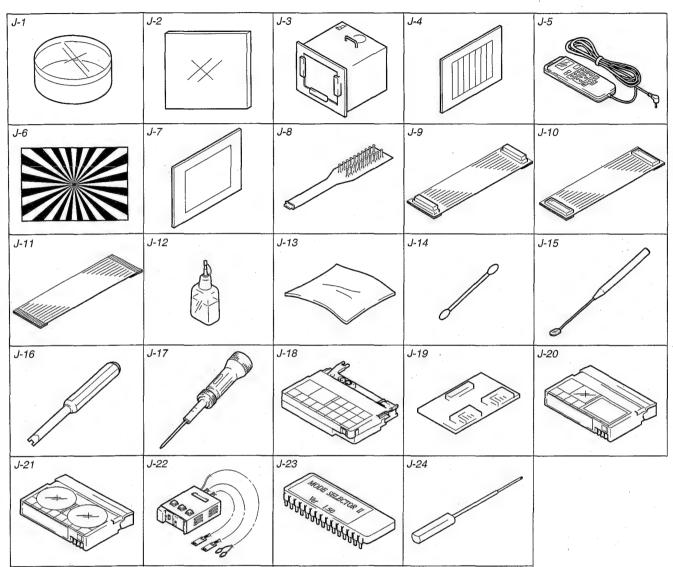
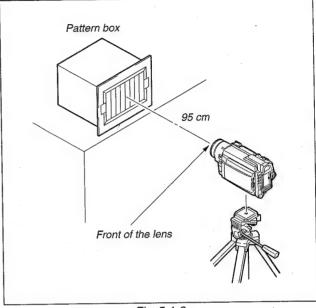


Fig. 5-1-1

1-1-2. Preparations

- Note 1: For details of how remove the cabinet and boards, refer to "2. DISASSEMBLY".
- Note 2: When performing only the adjustments, the lens block and boards need not be disassembled.
- 1) Connect the equipment for adjustments according to Fig. 5-1-
- 2) The front panel block (MA-333 board, focus ring, focus switch, ND filter switch, microphone unit) must be assembled because the focus ring and ND filter switch are used for adjustments.
- The viewfinder (VF-121 board, LB-55 board) and upper cabinet (LCD window, ED-48 board) are need not be connected. To remove them, disconnect the following connectors.
 - 1. VI-151 board CN2905 (20P, 0.5 mm)
 - 2. CK-80 board CN7207 (24P, 0.5 mm)
 - 3. CK-80 board CN7203 (5P, 0.5 mm)
- Note 3: As removing the cabinet (R) (removing the VI-151 board CN2906) means removing the lithium 3V power supply (BT7200), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on history use (data of page: 2, address: A2 to AA). (Refer to "SELF-DIAGNOSIS FUNCTION" for the self-diagnosis data, and to "5-4. Service Mode" for the data on the history use.)
- Note 4: Setting the "Forced Camera Power ON" Mode
 - 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: O, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander.

 The above procedure will enable the camera power to be turned on with the operation switch block (FK-4880) removed. After completing adjustments, be sure to exit the "Forced Camera Power ON Mode".
- Note 5: Exiting the "Forced Camera Power ON" Mode
 - 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
 - 3) Select page: 0, address: 01, and set data: 00.



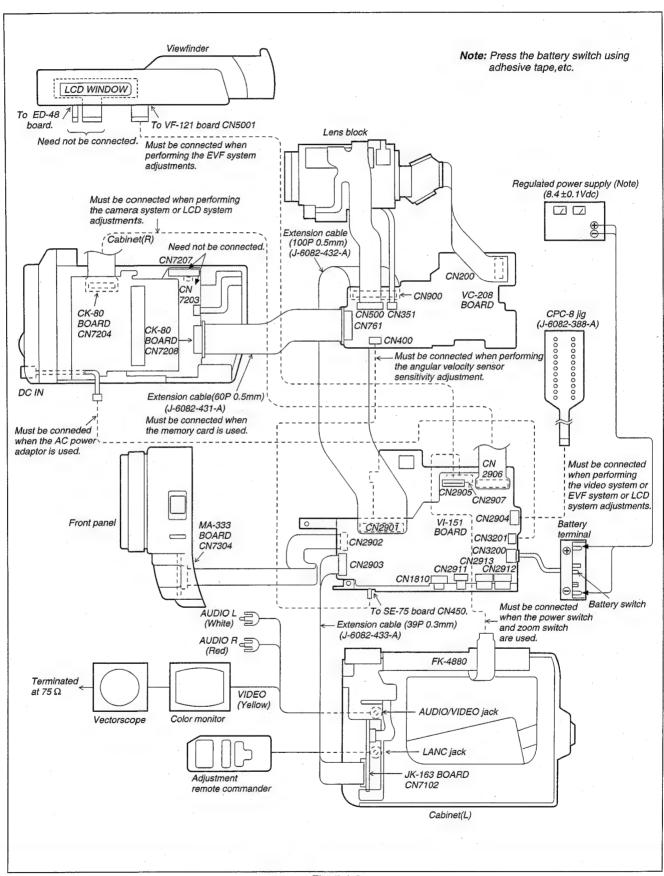


Fig. 5-1-3

1-1-3. Precaution

1. Setting the Switch

Unless otherwise specified, set the switches as follows and perform adjustments without loading cassette.

adji	istments without loading casseite.	
1.	POWER switch (FK-4880 block)	CAMERA
2.	DIGITAL ZOOM (Menu display)	OFF
3.	STEADY SHOT (Menu display)	OFF
4.	DISPLAY (Menu display)	V-OUT/LCD
5	DISPLAY (CK-80 board)	ON
6	AUTO LOCK (CK-80 board)	AUTC
7	ND FILTER	OFF

FOCUS switch (FP-21)	MANUAL
BACK LIGHT (ED-48 board)	OFF
PICTURE EFFECT (CK-80 board)	OFF
	BACK LIGHT (ED-48 board)

2. Order of Adjustments

Basically carry out adjustments in the order given.

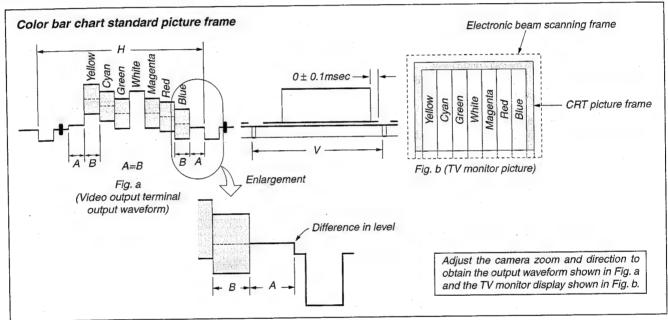
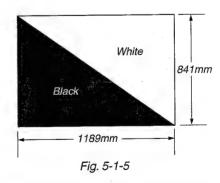


Fig. 5-1-4

3. Subjects

- Color bar chart (Standard picture frame).
 When performing adjustments using the color bar chart, adjust
 the picture frame as shown in Fig. 5-1-4. (Standard picture
 frame)
- 2) Clear chart (Standard picture frame) Remove the color bar chart from the pattern box and insert a clear chart in its place. (Do not perform zoom operations during this time.)
- 3) Flange back adjustment chart
 Make the chart shown in Fig. 5-1-5 using A0 size (1189 mm × 841 mm) black and white vellum paper.



Note: Use matte vellum paper bigger than A0, and make sure the edges of the black and white paper joined together are not rough.

1-2. INITIALIZATION OF F, E PAGE DATA

1. Initializing the F, E Page Data

Note: If the F, E page data is initialized, the following adjustments must be performed again.

- 1) Modification of F, E Page Data
- 2) Camera System Adjustments

Adjusting page	F
Adjusting Address	10 to FF
Adjusting page	E
Adjusting Address	00 to 9B

Initializing Method:

- 1) Set the power switch to the CAMERA position.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 6, address: 01, and set data: 2D (NTSC) or data: 2F (PAL), and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 6, address: 03, set data: 01, and press the PAUSE button of the adjustment remote commander.
- 5) Select page: 6, address: 02, and check that the data is "01".
- 6) Perform "Modification of F, E Page Data".

2. Modification of F, E Page Data

If the F, E PAGE data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set data: 01.
- 2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camcorder may not operate.

- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value.
 If not, change the data to the initial value.

Processing after Completing Modification of F, E Page data

- 1) Select page: 2, address: 00, and set data: 29.
- 2) Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- 3) Perform the "Camera System Adjustments".

3. F Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the F, E Page Data")

Fixed data-2: Modified data. (Refer to "2. Modification of F, E Page Data")

Address		value	Remark
Address	NTSC	PAL	Remark
00 to 0F	-	-	
10			Fixed data-1
11			(Initialized data)
12			
13			
14			•
15			
16			
17			
18			

	1 - 111 - 1		
Address		value	Remark
10	NTSC	PAL	Fixed data-1
19 1A	_		(Initialized data)
1B			(Initialized data)
1C	80	- 80	27MII- origin ago adi
1D	80	. 80	27MHz origin osc. adj. Fixed data-1
1E	60	60	
1F	40	60	IRIS & ND HALL adj.
20	00	00	AWB standard data input
21	28	28	AWB standard data input
22	00	00	•
23	50	50	·
24	8E	2C	Flange back adj.
25	1A	17	I range back adj.
26	80	78	
27	24	1D	
28	65	FB	
29	11	12	· .
2A	**		Fixed data-1
2B			
2C	64	64	Max gain adj.
2D		1	Fixed data-1
2E			(Initialized data)
2F			
30			
31			
32			
33	-		
34	88	90	Auto white balance adj.
35	6C	8F	
36	D6	D6.	Flange back adj.
37	E6	E6	
38	15	23	
39	45	00	
3A	3F	19	•
3B	3F	00	
3C	16	27	
3D	A8	A8	
3E	80	80	LV standard data input
3F	76	76	
40			Fixed data-1
41	50	50	Angular velocity sensor sensitivity
42	50	50	adj.
43			Fixed data-1
44	D5	D5	Color reproduction adj. (1)
45	EC	EC	(ND filter OFF)
46	20	20	
47	20	20	
48	60	60	IRIS & ND HALL adj.
49	40	60	
4A	00	00	WB ND filter compensation adj.
4B	00	00	TDIG 0 ND II :
4C	89	89	IRIS & ND HALL adj.
4D			Fixed data-1
4E			(Initialized data)
4F	Charletor	ning Babasinasa	
50			Fixed data-2

Address	Initial value	Remark
51		Fixed data-2
52		Fixed data-1
53		(Initialized data)
54		•
55		
56		
57		Fixed data-2
58		Fixed data-1
59		(Initialized data)
5A		,
5B		
5C		
5D		
5E		Fixed data-2
5F	<u> </u>	Fixed data-1
60	,	Fixed data-2
61		Fixed data-1
62		1 incu data-1
		Fixed data-2
63		(Modified data, copy the data built in
64		and the same of th
65		the same model.)
66		Fixed data-1
67	4	(Initialized data)
68	1	• •
69	1	
6A		
6B		Fixed data-2
6C		
6D		and the shall be a second of the same
6E		Fixed data-1
6F		
70	89 89	IRIS & ND HALL adj.
71		Fixed data-1
72] .	(Initialized data)
73		
74	ga dina ng kapayaya ta sha shaqa. Bayay Milita saya iyo niga sayar	Fixed data-2
75		Fixed data-1
76	}	(Initialized data)
77		
78		
79		
7A	1	
7B	1	. //
7C	†	
7D	†	•
7E	1	
<u> </u>	H [*]	
7F	i .	
7F 80	-	
80		
80 81		
80 81 82		
80 81 82 83		
80 81 82 83 84		
80 81 82 83 84 85		
80 81 82 83 84 85 86		
80 81 82 83 84 85		

Address	Initial value	Day	nark
Audress	NTSC PAL	Ren	nark
89	·	Fixed data-1	
8A		(Initialized data)	
8B			
8C			
8D			
8E			
8F			
90			
91			
92			
93			
94			
95	}		
96			
97	}		
98			
99			
9A	al Charles (1996) Garage (1997)	Fixed data-2	
9B		Fixed data-1	
9C		(Initialized data)	
9D			
9E			
9F			
A0			
A1			
A2			
A3			
A4			
A5			
A6		Fixed data-2	
A7		Fixed data-1	•
A8		(Initialized data)	
A9			
AA			
AB			
AC			
AD			
AE			
AF B0			
B0 B1			
B1 B2			
B2 B3			
B3 B4	,		
B5			
B6			
B7			
B8			
B9			
BA			
BB			
ВС			
BD			
BE			
BF			
C0			

Address	Initial value	Remark
	NTSC PAL	Fixed data-1
C1 C2		
		(Initialized data)
C3		
C4		
C5		4 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
C6	n Star Town Pakeron	Fixed data-2
C7		(Modified data, copy the data built in
C8		the same model.)
C9		
CA		Fixed data-1
СВ		
CC	And the factor with the second	Fixed data-2
CD		(Modified data, copy the data built in
CE		the same model.)
CF		
D0		
D1		
D2		
D3		Fixed data-1
D4	1	(Initialized data)
D5	1	
D6	1	
D7		
D8		
D9	-	
DA	-	·
DB	1	
	-	÷
DC	-	
DD	_	
DE	-	
DF	_	•
E0	1	
E1	1	
E2		
E3	_	
E4	_	
E5		
E6	_	
E7	_	
E8		
E9		
EA		
EB		
EC		
ED	1	
EE	1	
EF	1	
F0	1	
F1	1	
F2	-	
F3	1	
F3	4	
	4	•
F5	-	
F6	-	,
F7	<u>.</u>	
F8		

Address	Initial value		Remark
	NTSC PAL		
F 9		SEANS	Fixed data-2
FA			Fixed data-1
FB			
FC			Fixed data-2
FD			Fixed data-1
FE			
FF			

Table. 5-1-1

d data-2: N	age Da	d data. (Refer to "2. Modification of F,
		Remark
3.0 121.0 mm 1 25. 1. 12.14 mm	. 10 4 10	Fixed data-2
		Fixed data-1
		(Initialized data)
y jakonysky s ladi	egileşî ilka	Fixed data-2
<u> </u>	<u></u>	Fixed data-1
	· Space	Fixed data-2
		Fixed data-1
1		(Initialized data) .
1		
Ī		
r Paul Stage Paul S Stage Paul S	and the	Fixed data-2
		Fixed data-1
_		(Initialized data)
_		
	Winds A	Fixed data-2
		Fixeu data-2
11 5 1 4 7 1 2 2 1 1 1 1	2 1 A 2 2 A 2 A 2	Fixed data-1
-		(Initialized data)
1		
1		
7		
]		
	•	
4		
-		
-		
4		
-		
_		
1		
-		
_		
40	40	Pre white balance data input
40 40	40	
		Fixed data-1
80 80	40 80 80	Fixed data-1
40 80	40 80	Fixed data-1 OFFSET adj.
80 80	40 80 80	Fixed data-1 OFFSET adj. Fixed data-1
80 80	40 80 80	Fixed data-1 OFFSET adj.
	Initial v	Initial value NTSC PAL

Address	Initial v		Remark
	NTSC	PAL	
34			Fixed data-1
35			(Initialized data)
36			
37			•
38			
39			
3A			
3B			
3C			
3D			
3E			
3F	<u> </u>		
40			
41			
42			
43			
44			
45	1		
46			
47			
48	80	80	PSD sensor gain adj.
49	80	80	
4A			Fixed data-1
4B			(Initialized data)
4C			
4D	e strangersy	High	Fixed data-2
4E			Fixed data-1
4F			(Initialized data)
50	1		
51	1		
52			Fixed data-2
53			An influence in the control of the
54			and product the control of the product of the control of the contr
55			
56	ALEXTON DE LE CAL	<u>Such Veracus</u>	Fixed data-1
57			Fixed data-2
58			
59			
5A			
5B			
5C	130000000000000000000000000000000000000	gray, vers	Fixed data-1
5D	E Maka Saka	A WAR	Fixed data-2
5E	1107 1100		Fixed data-2 Fixed data-1
5F	-		(Initialized data)
60	-		(Amaineou unu)
61	-		
62	D5	D5	Color reproduction adj. (2)
		EC	(ND filter ON)
63	EC	20	- (TAD THIEL OLA)
64	20	-	+
65	20	20	Fixed data 1
66	_		Fixed data-1
67	_		
68			F. diamo
69			Fixed data-2
6A			Fixed data-1
6B			(Initialized data)

	Initial	value	
Address	NTSC	PAL	Remark
6C			Fixed data-1
6D			(Initialized data)
6E			
6F			
70			
71			
72	ĺ		
73			
74	ĺ		
75			
76	1		
77			
78			
79			·
7A			
7B	j		
7C			
7D			
7E			
7F			
80	1		•
81			
82		- sm-sh	Fixed data-2
83			
84		634,0344, 4	Fixed data-1
85			(Initialized data)
86	1		(Lineal Linear)
87			
88			
89			
8A		o johan v	Fixed data-2
8B	1.79 MARC 6 18	APPOCTORING.	Fixed data-1
8C	NS/\$4500-2	WINSHIE	Fixed data-2
8D			
8E	140 <u>0</u> 155000	in the state of the state of the	Fixed data-1
8F			(Initialized data)
90			
91	٠,		
92			
93			
94			
95			
96			
97 .			
98			
98			•
9A			
9B			·
9C to FF			

Table. 5-1-2

1-3. CAMERA SYSTEM ADJUSTMENTS

Before perform the camera system adjustments, check that the specified value of "Composite Output Y Level Adjustment" and "Composite Output Chroma Level Adjustment" of "Base Band Block Adjustment" of "VIDEO SYSTEM ADJUSTMENT" are satisfied.

1. 27 MHz Origin Oscillation Adjustment (VC-208 Board)

Set the frequency of the clock for synchronization.

If deviated, the synchronization will be disrupted and the color will become inconsistent.

00001110 1111111	
Subject	Not required
Measurement Point	Pin ⑦ of IC204 or Pin ② of IC207 or Pin ⑦ of IC300
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	1C
Specified Value	f=13500000 ± 68 Hz

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: F, address: 1C, change the data and set the clock frequency (f) to the specified value.
- 3) Press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

2. IRIS & ND HALL Auto Adjustment

For detecting the position of the lens iris and ND filter, adjust the hall AMP gain and offset.

ian AMF gain and onsec.		
Subject	Not required	
Measurement Point	DDS display data of LCD or TV	
Measuring Instrument	monitor (Note 5)	
Adjustment Page	F	
Adjustment Address	1E, 1F, 48, 49, 4C, 70	
Specified Value	IRIS display data: 88 to 8A during IRIS OPEN (Note 1) 14 to 18 during IRIS CLOSE (Note 2) ND display data: 14 to 18 during ND filter OFF (Note 3) 88 to 8A during ND filter ON (Note 4)	

Note 1: Select page: 6, address: 01, set data: 01, and press the PAUSE button of the adjustment remote commander.

Note 2: Select page: 6, address: 01, set data: 03, and press the PAUSE button of the adjustment remote commander.

Note 3: Select page: 6, address: 1C, and set data: 02. Note 4: Select page: 6, address: 1C, and set data: 03.

Note 5: DDS display data of LCD or TV monitor.

CA 00 0000
CA 00 YY XX
IRIS display data
ND display data

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 94, and set data: 89.
- 3) Select page: 6, address: 95, and set data: 16.
- Select page: 6, address: 01, set data: 6D, and press the PAUSE button of the adjustment remote commander. (The HALL adjustment is performed and the adjustment data is stored in page: F, address: 1E, 1F, 48, 49, 4C and 70.)
- 5) Select page: 6, address: 02, and check that the data is "01".

Processing after Completing Adjustments

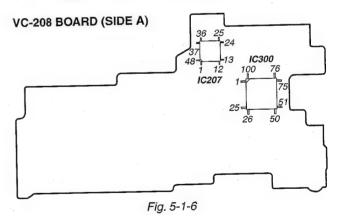
- 1) Select page: 6, address: 94, and set data: 00.
- 2) Select page: 6, address: 95, and set data: 00.
- 3) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

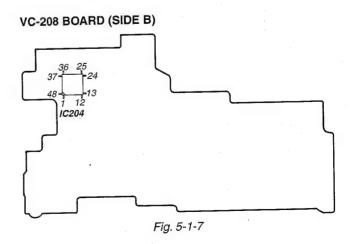
Checking method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: D, address: 11, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 04, and set data: 03.
- Select page: 6, address: 01, set data: 01, and press the PAUSE button
- Check the IRIS display data lies within the "88" to "8A" range.
- 6) Select page: 6, address: 01, set data: 03, and press the PAUSE button.
- 7) Check the IRIS display data lies within the "14" to "18" range.
- 8) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 9) Select page: 6, address: 1C, and set data: 02.
- 10) Check the ND display data lies within the "14" to "18" range.
- 11) Select page: 6, address: 1C, and set data: 03.
- 12) Check the ND display data lies within the "88" to "8A" range.

Processing after Completing Check

- Select page: D, address: 11, and set data: 00, and press the PAUSE button.
- 2) Select page: 0, address: 01, and set data: 00.
- 3) Select page: 6, address: 01, and set data: 00, and press the PAUSE button.
- 4) Select page: 6, address: 1C, and set data: 00.





3. Offset Adjustment

Adjust so that the AGC OUT potential lies within the specified value of the digital clamp.

or are and and	
Subject	Not required
Measurement Point	DDS display data of LCD or TV
Measuring Instrument	monitor (Note)
Adjustment Page	Е
Adjustment Address	2D, 2E, 2F
Specified Value	50 to B0

Note: DDS display data of LCD or TV monitor.

CA 00 0000

CA 00 00XX

Object data

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: D, address: 11, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, set data: 07 and press the PAUSE button
- 4) Select page: 6, address: 04, and set data: 1F.
- 5) Check the DDS display data (Rch OPB) satisfies the specified value. If not perform the Rch offset adjustment.
- 6) Select page: 6, address: 04, and set data: 20.
- Check the DDS display data (Gch OPB) satisfies the specified value. If not perform the Gch offset adjustment.
- 8) Select page: 6, address: 04, and set data: 21.
- Check the DDS display data (Bch OPB) satisfies the specified value. If not perform the Bch offset adjustment.
- Select page: 6, address: 01, and set data: 05 and press the PAUSE button.
- 11) Select page: 6, address: 04, and set data: 1F.
- 12) Check the DDS display data (Rch OPB) satisfies the specified value. If not perform the Rch offset adjustment.
- 13) Select page: 6, address: 04, and set data: 20.
- 14) Check the DDS display data (Gch OPB) satisfies the specified value. If not perform the Gch offset adjustment.
- 15) Select page: 6, address: 04, and set data: 21.
- 16) Check the DDS display data (Bch OPB) satisfies the specified value. If not perform the Gch offset adjustment.

Rch offset adjustment

- 1) Select page: E, address: 0C, set data: 02, and press the PAUSE button.
- Select page: E, address: 2D, change the data and adjust the DDS display data to the specified value.

· Gch offset adjustment

- Select page: E, address: 0C, set data: 02, and press the PAUSE button.
- Select page: E, address: 2E, change the data and adjust the DDS display data to the specified value.

Bch offset adjustment

- 1) Select page: E, address: 0C, set data: 02, and press the PAUSE button
- 2) Select page: E, address: 2F, change the data and adjust the DDS display data to the specified value.

- Select page: D, address: 11, set data: 00, and press the PAUSE button.
- Select page: E, address: OC, set data: 00, and press the PAUSE button.
- 3) Select page: 0, address: 01, and set data: 00.
- 4) Select page: 6, address: 01, and set data: 00, and press the PAUSE button.
- 5) Select page: 6, address: 04, and set data: 00.

4. Flange Back Adjustment

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

4-1. Flange Back Adjustment (1)

Subject	Flange back adjustment chart (2.0 m from the front of the lens) (Luminance: 230 ± 30 lux)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument	Check operation on 1 v monitor	
Adjustment Page	F	
Adjustment Address	24 to 29, 36 to 3D	

Adjusting method:

- Check that at both the zoom lens TELE end and WIDE end, the center of the chart for the flange back adjustment and center of the exposure screen coincide.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Check that the data of page: F, address: 24 to 29, 36 to 3D is

	Da	ta Address		Data Data		ta
Address	NTSC	PAL	Address	NTSC	PAL	
24	8E	2C	37	E6	E6	
25	1A	17	38	15	23	
26	80	78	39	45	00	
27	24	1D	3A	3F	19	
28	65	FB	3B	3F	00	
29	11	12	3C	16	27	
36	D6	D6	3D	A8	A8	

the initial value (See table below).

- 4) Select page: 6, address: 02, and check that the data is "00".
- 5) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
- 6) Select page: 6, address: 01, set data: 15, and press the PAUSE button of the adjustment remote commander.

 (The adjustment data will be automatically input to page: F, addresses: 24 to 29, 36 to 3D.)
- 7) Select page: 6, address: 02, and check that the data is "01".

Processing after Completing Adjustments

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Perform "Flange Adjustment (2)".

4-2. Flange Back Adjustment (2)

Perform this adjustment after performing "Flange Back Adjustment (1)".

Subject	Subject more than 500 m away (Subjects with clear contrast such as buildings, etc.)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument		
Adjustment Page	F	
Adjustment Address	24 to 29, 36 to 3D	

Adjusting method:

- 1) Set the zoom lens to the TELE end and expose a subject that is more than 500 m away (subject with clear contrast such as building, etc.). (Nearby subjects less than 500 m away should not be in the screen.)
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 6, address: 02, and check that the data is "00".
- Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
- Place a ND filter on the lens so that the optimum image is obtain.
- 6) Select page: 6, address: 01, set data: 29, and press the PAUSE button of the adjustment remote commander.

 (The adjustment data will be automatically input to page: F, addresses: 24 to 29, 36 to 3D.)
- 7) Select page: 6, address: 02, and check that the data is "01".

- 1) Select page: 0, address: 01, and set data: 00.
- Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 3) Perform "Flange Back Check".

5. Flange Back Check

Subject	Siemens star (2.0 m from the front of the lens) (Luminance: 300 ± 50 lux)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument		
Specified Value	Focused at the TELE end and WIDE end.	

Switch setting:

1) DIGITAL ZOOM (Menu display)OFF

Checking method:

- 1) Place the Siemens star 2.0 m from the front of the lens.
- 3) Shoot the Siemens star with the zoom TELE end.
- 4) Turn on the auto focus.
- 5) Check that the lens is focused (Note).
- Turn off the auto focus.
- While observe the TV monitor, change the zoom to the WIDE end and check that the lens is focused.

Note: When the auto focus is ON, the lens can be checked if it is focused or not by observing the data on the page 1 of the adjustment remote commander.

- 1) Select page: 6, address: 04, and set data: 0F.
- 2) Page 1 shows the state of the focus.

1:00:XXOdd: Focused _ Even: Unfocused

Processing after Completing Adjustments

1) Select page: 6, address: 04, and set data: 00.

6. Picture Frame Setting

Subject	Color bar chart standard picture frame (95 cm from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope and TV monitor
Specified Value	A=B, C=D, t= 0 ± 0.1 msec

Setting method:

- Adjust the zoom and the camera direction, and set to the specified position.
- Mark the position of the picture frame on the monitor display, and adjust the picture frame to this position in following adjustments using "Color bar chart standard picture frame".

Check on the oscilloscope

1. Horizontal period

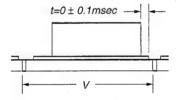


Fig. 5-1-8

2. Vertical period

Fig. 5-1-9

Color on the TV monitor

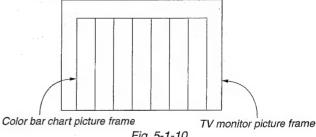


Fig. 5-1-10

7. Pre White Balance Data Input

At 3200 k, input the pre white balance standard data.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	E
Adjustment Address	2A, 2B

Switch setting:

1) ND filterOFF

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 1C, and set data: 02.
- 3) Select page: F, address: 20, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: F, address: 21, set data: 28, and press the PAUSE button
- 5) Select page: F, address: 22, set data: 00, and press the PAUSE button.
- Select page: F, address: 23, set data: 50, and press the PAUSE button.
- 7) Select page: 6, address: 01, set data: 7F, and press the PAUSE button.
- Select page: 6, address: 01, and set data: 7D, press the PAUSE button.(When the standard data is take in, the data will be automatically input to page: E, address: 2A and 2B.)
- 9) Select page: 6, address: 02, and check that the data is "01".

Processing after Completing Adjustments

- Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, and set data: 00.
- 3) Select page: 0, address: 01, and set data: 00.
- 4) Perform "Auto White Balance Standard Data Input".

8. Auto White Balance Standard Data Input

At 3200 K, input the white balance standard data.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	20 to 23

Note 1: Perform "Pre White Balance Data Input" before this adjustment. Note 2: Check that the data of page: 6, address: 02 is 00. If not, turn the

power of the unit OFF/ON.

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 6, address: 01, and set data: 11, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, and set data: 0B, and press the PAUSE button.
 - (When the standard data is take in, the data will be automatically input to page: F, address: 20 to 23.)
- 4) Select page: 6, address: 02, and check that the data is "01".

Processing after Completing Adjustments

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

9. MAX GAIN Adjustment

Setting the minimum illumination.

If it is not consistent, the image level required for taking subjects in low illuminance will not be produced (dark).

Subject	Clear chart (Color bar standard picture frame) (95 cm from the front of the lens)
Adjustment Page	F
Adjustment Address	2C

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 96, and set data: 00.
- 3) Select page: 6, address: 97, and set data: 2C (NTSC) or data: 21 (PAL).
- Select page: 6, address: 01, set data: 6F and press the PAUSE button of the adjustment remote commander.
 (When the adjustment data is take in, the data will be automatically input to page: F, address: 2C.)
- 5) Select page: 6, address: 02, and check that the data is changed to "01".

Processing after Completing Adjustments

- 1) Select page: 6, address: 96, and set data: 00.
- 2) Select page: 6, address: 97, and set data: 00.
- 3) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

10. LV Standard Data Input

Adjust the normal coefficient of the light value.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	3E, 3F

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 6, address: 01, and set data: 0D, and press the PAUSE button of the adjustment remote commander. (When the adjustment data is take in, the data will be automatically input to page: F, address: 3E and 3F.)

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

11. White Balance ND Filter Compensation Adjustment

Compensate the white balance deviation when ND filter is ON.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	4A, 4B

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 1C, and set data: 03.
- Wait for 2 seconds.
- 4) Select page: 6, address: 01, and set data: 11, and press the PAUSE button of the adjustment remote commander.
- Select page: 6, address: 01, and set data: 09, and press the PAUSE button.
 - (When the adjustment data is take in, the data will be automatically input to page: F, address: 4A and 4B.)
- Select page: 6, address: 02, and check that the data is changed to "01".

Processing after Completing Adjustments

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, and set data: 00.
- 3) Select page: 0, address: 01, and set data: 00.

12. Auto White Balance Adjustment

Adjust to the proper auto white balance output data. If it is not correct, auto white balance and color reproducibility will

Subject	Clear chart (Color bar standard picture frame)
Filter	Filter C14 for color temperature correction
Adjustment Page	F
Adjustment Address	34, 35

Adjusting method:

- Place the C14 filter for color temperature correction on the lens.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 6, address: 01, set data: 83, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 6, address: 01, set data: 81, and press the PAUSE button.
 - (When the adjustment data is take in, the data will be automatically input to page: F, address: 34 and 35.)
- 5) Select page: 6, address: 02, and check that the data is changed to "01".

Processing after Completing Adjustments

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

13. Color Reproduction Adjustment (ND Filter OFF)

When the ND filter is off, adjust the color difference matrix coefficient so that proper color reproduction is produced.

Subject	Color bar chart standard picture frame
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Adjustment Page	F
Adjustment Address	44, 45, 46, 47
Specified Value	All color luminance points should settle within each color reproduction frame.

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: F, address: 5E, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, set data: 61, and press the PAUSE button of the adjustment remote commander.
- Adjust the GAIN and PHASE of the vectorscope, and adjust the burst luminance point to the burst position of the color reproduction frame.
- 5) Change the data of page: F, address: 44, 45, 46 and 47, and settle each color luminance point in each color reproduction frame.

Note: Be sure to press the PAUSE button of the adjustment remote commander before changing the addresses. If not, the new data will not be written to the memory.

- Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: F, address: 5E, set data: 25, and press the PAUSE button
- 3) Select page: 0, address: 01, and set data: 00.

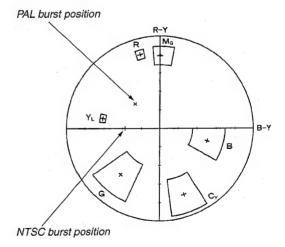


Fig. 5-1-11

14. Color Reproduction Adjustment (ND Filter ON)

When the ND filter is on, adjust the color difference matrix coefficient so that proper color reproduction is produced.

coefficient so that proper	
Subject	Color bar chart standard picture frame
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Adjustment Page	E ·
Adjustment Address	62, 63, 64, 65
Specified Value	All color luminance points should settle within each color reproduction frame.

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: F, address: 5E, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 1C, set data: 03.
- 4) Wait for 2 seconds.
- 5) Select page: 6, address: 01, set data: 85, and press the PAUSE button of the adjustment remote commander.
- 6) Adjust the GAIN and PHASE of the vectorscope, and adjust the burst luminance point to the burst position of the color reproduction frame.
- 7) Change the data of page: E, address: 62, 63, 64 and 65, and settle each color luminance point in each color reproduction frame.

Note: Be sure to press the PAUSE button of the adjustment remote commander before changing the addresses. If not, the new data will not be written to the memory.

Processing after Completing Adjustments

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, set data: 00.
- 3) Select page: F, address: 5E, set data: 25, and press the PAUSE button.
- 4) Select page: 0, address: 01, and set data: 00.

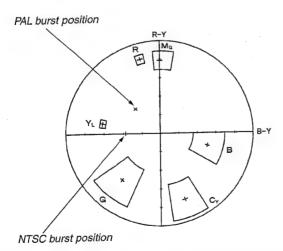


Fig. 5-1-12

15. White Balance Check

Subject	Clear chart (Color bar standard picture frame)	
Filter	Filter C14 for color temperature correction ND filter 1.0 and 0.3	
Measurement Point	Video output terminal	
Measuring Instrument	Vectorscope	
Specified Value	Fig. 5-1-13 (A) to (C)	

Checking method:

- 1) Check that the lens is not covered with either filter.
- 2) Select page: 6, address: 01, set data: 0F, and press the PAUSE button of the adjustment remote commander.
- 3) Check that the center of the white luminance point is within the circle shown Fig. 5-1-13 (A).
- 4) Select page: 6, address: 01, set data: 23, and press the PAUSE button of the adjustment remote commander.
- 5) Place the C14 filter on the lens.
- 6) Check that the center of the white luminance point settles in the circle shown Fig. 5-1-13 (B).
- 7) Remove the C14 filter, and place the ND filter 1.3 (1.0 + 0.3) on the lens.
- 8) Check that the white luminance point stopped moving, and then remove the ND filter 1.3.
- Check that the center of the white luminance point settles within the circle shown Fig. 5-1-13 (C).

Processing after Completing Adjustments

1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.

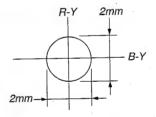


Fig. 5-1-13 (A)

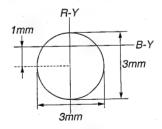


Fig. 5-1-13 (B)

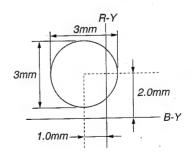


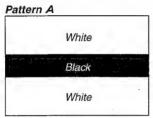
Fig. 5-1-13 (C)

16. PSD Sensor Gain Adjustment

Adjust the gain of the PSD sensor for steady shot operation.

16-1. PSD Sensor Gain Adjustment (1)

Subject	Pattern A (1.5 m from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope (V period)
Adjustment Page	Е
Adjustment Address	48



A4 size (297mm × 210mm) Fig.5-1-14

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: E, address: 48, set data: 80, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, set data: 8F, and press the PAUSE button of the adjustment remote commander.
- 4) Expose pattern A with the zoom TELE end.
- 5) Adjust the focus.
- Measure the vertical position SV1 (msec) of the falling edge of the waveform. (Oscilloscope is V period)
- Select page: 6, address: 01, set data: 91, and press the PAUSE button.
- 8) Measure the vertical position SV2 (msec) of the falling edge of the waveform. (Oscilloscope is V period)
- 9) Obtain D_{48} ' using the following equation (decimal calculation). NTSC model

$$D_{48}' = 128 \times (2.88/(SV2-SV1))$$

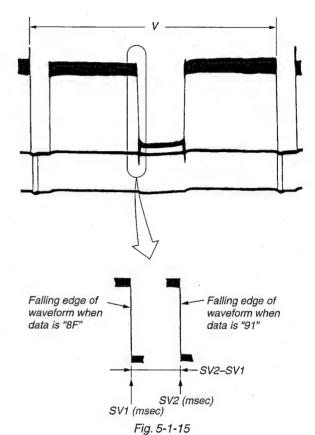
PAL model

 $D_{48}' = 128 \times (3.40/(SV2-SV1))$

- 10) Convert D₄₈' to hexadecimal notation, and obtain D₄₈. (Round off to one decimal place)

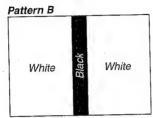
 (Rofer to Toble 5.4.1 "Hayadecimal decimal Conversion
 - (Refer to Table 5-4-1. "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Select page: E, address: 48, set data: D₄₈, and press the PAUSE button of the adjustment remote commander.

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.
- 3) Check that the steady shot operation is performed normally.



16-2. PSD Sensor Gain Adjustment (2)

Subject	Pattern B (1.5 m from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope (H period)
Adjustment Page	Е
Adjustment Address	49



A4 size (297mm × 210mm)

Fig.5-1-16

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: E, address: 49, set data: 80, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, set data: 8F, and press the PAUSE button of the adjustment remote commander.
- 4) Expose pattern B with the zoom TELE end.
- 5) Adjust the focus.
- 6) Measure the horizontal position SH1 (μ sec) of the falling edge of the waveform. (Oscilloscope is H period)
- 7) Select page: 6, address: 01, set data: 91, and press the PAUSE button
- Measure the horizontal position SH2 (μ sec) of the falling edge of the waveform. (Oscilloscope is H period)
- 9) Obtain D₄₉' using the following equation (decimal calculation). D₄₉' = 128 × (7.4/(SH2–SH1))
- Convert D₄₉' to hexadecimal notation, and obtain D₄₉. (Round off to one decimal place)
 (Refer to Table 5-4-1. "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Select page: E, address: 49, set data: D₄₉, and press the PAUSE button of the adjustment remote commander.

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.
- 3) Check that the steady shot operation is performed normally.

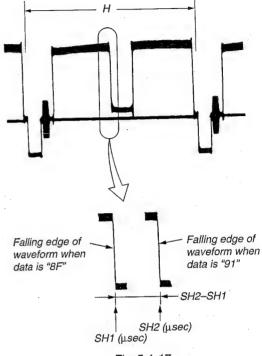


Fig. 5-1-17

17. Angular Velocity Sensor Sensitivity Adjustment

· This adjustment is performed only when replacing the angular velocity sensor.

Although this adjustment need not be performed when the circuit is damaged, etc., check the operations.

• Note down the sensitivity displayed on the angular velocity sensor of the repair parts. At this time, note down also to which board it was attached to.

Be sure to check because if attached incorrectly, the screen will vibrate up and down or left and right during hand-shake correction operations.

Precautions on the Parts Replacement

There are two types of repair parts.

ENC03JA Type A Type B

ENC03JB

Replace the broken sensor with a same type sensor. If replace with other type parts, the image will vibrate up and down or left and right during hand-shake correction operations. After replacing, readjust according to the adjusting method after replacement.

Precautions on Angular Velocity Sensor

The sensor incorporates a precision oscillator. Handle it with care as if it dropped, the balance of the oscillator will be disrupted and operations will not be performed properly.

Adjustment Page	F
Adjustment Address	41, 42

Note: The sensor sensitivity of SE450 and SE451 of the SE-75 board is written only on the repair parts.

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Read the sensor sensitivity written on SE450 of the SE-75 board, and take this as S450.
- Read the sensor sensitivity written on SE451 of the SE-75 board, and take this as S_{451} .
- Calculate D41' and D42' using the following equation (decimal calculation).

 $D_{41}' = 80 \times (0.60/S_{451})$

 $D_{42}' = 80 \times (0.60/S_{450})$

- 5) Convert D41' and D42' into hexadecimal digits, to obtain D41 and D₄₂. (Round off decimal points)
- Select page: F, address: 41, set data: D41, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: F, address: 42, set data: D42, and press the PAUSE button of the adjustment remote commander.

- 1) Select page: 0, address: 01, and set data: 00.
- Check that the steady shot operations have been performed normally.

1-4. COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENT

Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.

Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.

Note 3: Set the VF BRIGHT (Menu display) to the center.

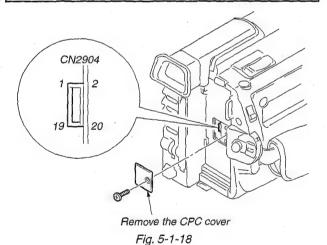
[Adjusting connector]

Most of the measuring points for adjusting the viewfinder system are concentrated in CN2904 of the VI-151 board.

Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A)

The following table shows the Pin No. and signal name of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL -	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

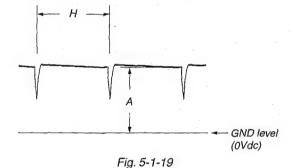


1. VCO Adjustment (VF-121 Board)

Set the VCO free-run frequency. If deviated, the EVF screen will be blurred.

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Pin ⑤ of CN2904 (EVF VCO) on VI-151 board
Measuring Instrument	Oscilloscope (DC range)
Adjustment Page	D
Adjustment Address	75
Specified Value	$A = 1.7 \pm 0.2V$

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Check the GND level of the oscilloscope.
- Select page: D, address: 75, change the data and set the VCO output voltage (A) to the specified value.
- 4) Press the PAUSE button of the adjustment remote commander.
- 5) Select page: 0, address: 01, and set data: 00.



5-21

2. Bright Adjustment (VF-121 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ④ of CN2904 (EVF VG) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	7A
Specified Value	$A = 7.25 \pm 0.05 \text{ V}$

Adjusting method:

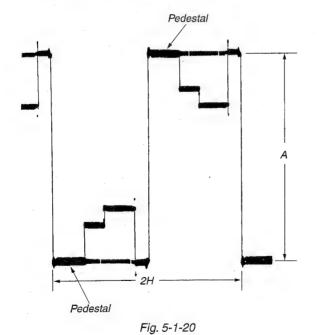
- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 7A, change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value. (The data of address: 7A should be "54" to "D7".)
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

3. Contrast Adjustment (VF-121 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ④ of CN2904 (EVF VG) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	7B
Specified Value	$A = 1.81 \pm 0.05 \text{ V}$

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 7B, change the data and set the voltage (A) between the 100 IRE and 0 IRE (pedestal) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.



100 IRE

A

O IRE (Pedestal)

Fig. 5-1-21

4. Backlight Consumption Current Adjustment (VF-121 Board)

Set the backlight luminance and color temperature. If deviated, the image may become dark or bright.

If deviated, the image ma) 0000
Mode	Camera
Subject	Arbitrary
Measurement Point	+ Probe: Pin ② of CN2904 (EVF BL +) on VI-151 board - Probe: Pin ③ of CN2904 (EVF BL -) on VI-151 board
Measuring Instrument	Digital voltmeter
Adjustment Page	D
Adjustment Address	76
Specified Value	$A = 17.0 \pm 1.0 \text{ mVdc}$

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: D, address: 76, change the data and set the voltage difference (A) between Pin ② of CN2904 (EVF BL +) and Pin ③ of CN2904 (EVF BL -) to the specified value.
- 3) Press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

5. White Balance Adjustment (VF-121 Board)

Correct the white balance.

If deviated, the reproduction of the EVF screen may degenerate.

Mode	Camera	
Subject	Arbitrary	
Measurement Point	Check on EVF screen	
Measuring Instrument		
Adjustment Page	D	
Adjustment Address	71, 72	
Specified Value	The EVF screen should not be colored.	

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0B, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 71 and 72, set the data to the initial

Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	71	72
Data	80	80

5) Check that the EVF screen is not colored. If colored, change the data of page: D, address: 71 and 72 so that the EVF screen is not colored.

Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

1-5. LCD SYSTEM ADJUSTMENT

Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.

Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.

Note 3: Set the LCD BRIGHT to the center.
Set the LCD COLOR (Menu display) to the center.

[Adjusting connector]

Most of the measuring points for adjusting the LCD system are concentrated in CN2904 of the VI-151 board.

Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A).

The following table shows the Pin No. and signal name of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL -	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

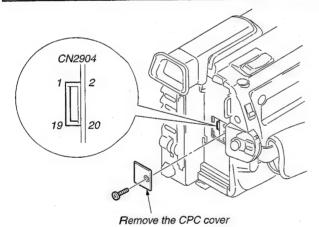


Fig. 5-1-22

1. VCO Adjustment (PD-101 Board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

Mode	VTR stop	
Signal	arbitrary	
Measurement Point	Pin ③ of CN2904 (H START) on VI-151 board	
Measuring Instrument	Frequency counter	
Adjustment Page	D	
Adjustment Address	84	
Specified Value	f = 15734 ± 30 Hz (NTSC) f = 15625 ± 30 Hz (PAL)	

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 22, set data: 03, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 84, change the data and set the frequency (f) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

2. D range Adjustment (PD-101 Board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

or saturated (Willush).		
Mode	Camera	
Subject	Arbitrary	
Measurement Point	Pin ⑦ of CN2904 (PD VG) on VI-151 board	
Measuring Instrument	Oscilloscope	
Adjustment Page	D	
Adjustment Address	82	
Specified Value	$A = 3.56 \pm 0.05 \text{ V}$	

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 82, change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

3. Bright Adjustment (PD-101 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

(William).		
Mode	Camera	
Subject	Arbitrary	
Measurement Point	Pin ⑦ of CN2904 (PD VG) on VI-151 board	
Measuring Instrument	Oscilloscope	
Adjustment Page	D	
Adjustment Address	8A	
Specified Value	$A = 1.94 \pm 0.05 \text{ V}$	

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 2, address: 0E, and set data: 40.
- 5) Select page: D, address: 8A, change the data and set the voltage (A) between the pedestal and GAMMA1 limiter level to the specified value. (The data of address: 8A should be "1E" to "A0".)
- Press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 0E, and set data: 00.
- 8) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 9) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 0, address: 01, and set data: 00.

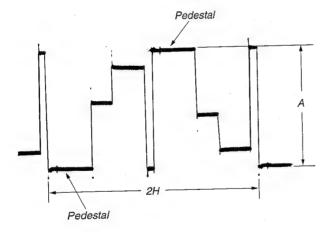
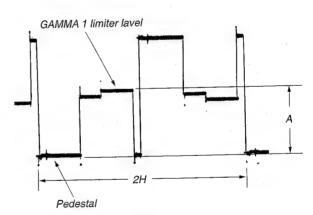


Fig. 5-1-23



Fia. 5-1-24

4. Contrast Adjustment (PD-101 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Camera
Arbitrary
Pin ⑦ of CN2904 (PD VG) on VI-151 board
Oscilloscope
D
8C
$A = 3.04 \pm 0.05 \text{ V}$

Adjusting method:

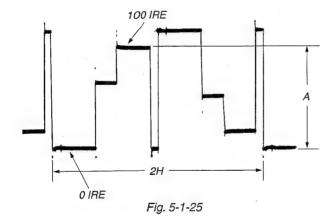
- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 8C, change the data and set the voltage (A) between the 0 IRE (pedestal) and 100 IRE to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

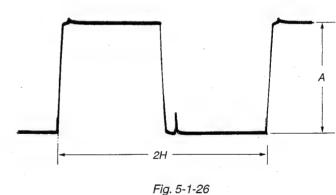
5. V-COM Level Adjustment (PD-101 Board)

Set the common electrode drive signal level of LCD to the specified value.

Camera
Arbitrary
Pin ① of CN2904 (PANEL COM) on VI-151 board
Oscilloscope
D
83
$A = 6.85 \pm 0.05 \text{ V}$

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 83, change the data and set the PANEL COM signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.





6. V-COM Adjustment (PD-101 Board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.

If deviated, the LCD display will move, producing flicker and

conspicuous vertical lines.

Conspicuous vertical		
Mode	Camera	
Subject	Arbitrary	
Measurement Point	Check on LCD display	
Measuring Instrument	Check on Bell display	
Adjustment Page	D	
Adjustment Address	85	
Specified Value	The brightness difference between the section A and section B is minimum.	

Note: Perform "Bright Adjustment" and "Contrast Adjustment" before this adjustment.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.

- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0F, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 2, address: 0E, and set data: 20.
- 5) Select page: D, address: 85, change the data so that the brightness of the section A and that of the section B is equal.
- 6) Press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 0E, and set data: 00.
- 8) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 0, address: 01, and set data: 00.

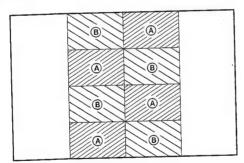


Fig. 5-1-27

7. White Balance Adjustment (PD-101 Board)

Correct the white balance.

If deviated, the LCD screen color cannot be reproduced.

II deviated, the Beb sereen estat to		
Mode	Camera	
Subject	Arbitrary	
Measurement Point	Check on LCD display	
Measuring Instrument	Check on ECD display	
Adjustment Page	D	
Adjustment Address	80, 81	
Specified Value	The LCD screen should not be colored.	

Note: Check the white balance only when replacing the following parts. If necessary, adjust them.

- 1. LCD panel
- 2. Light induction plate
- 3. IC5502

Adjusting method:

- Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0B, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 80 and 81, set the data to the initial

Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	80	81
Data	A0	70

5) Check that the LCD screen is not colored. If colored, change the data of page: D, address: 80 and 81 so that the LCD screen is not colored.

Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

5-2. MECHANICAL SECTION ADJUSTMENT

2-1. PARTS REPLACEMENT AND PREPARATION FOR ADJUSTMENT

About Mode Selector II

2-1-1. Outline

This unit is a mechanism drive tool which supplements the maintenance of each mechanism deck. Its functions are described below.

1. Manual test

A mode which drives the motor only while the switch is ON. It enables the operator to control the motor as desired.

2. Step test

A mode which drives the motor until the current condition detected by the sensor changes to another condition. It enables the movements made by the motor in each operation to be controlled while being checked.

3. Auto test

A mode that checks if the mechanism operates normally according to the condition shift table recorded in the unit for each mechanism deck. All the conditions of the decks are checked through a series of operations.

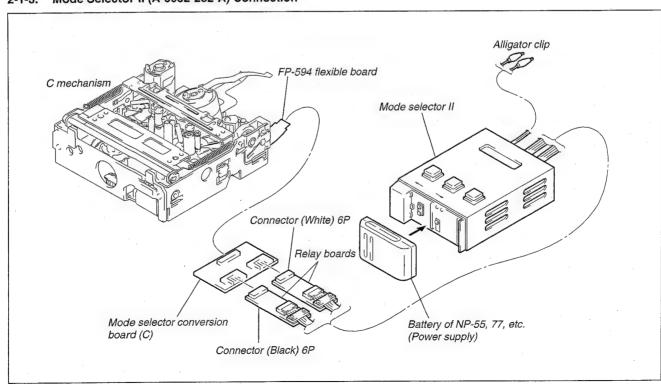
An error message is displayed if incorrect shifts and conditions are detected and operations are stopped.

2-1-2. Mechanism Condition (Position) Shifting Order List

After selecting the mechanism deck, select one of the two test modes other than the auto test, and press the RVS and FF button to specify the mechanism state (position).

MD name					C mechanism
Α	В	С	D		
1	1	1	0	1	EJECT
1	0	1	0	2	ULE
1	0	1	1	3	SR
1	0	0	1	4	HL
0	1	1	1	5	LE
0	0	1	1	6	STOP
1	1	0	1	. 7	RP .
1	1	0	0	8	REW

2-1-3. Mode Selector II (A-6082-282-A) Connection



2-1-4. The Mechanical Adjustment Requires the Following Tools

- 1) Cleaning fluid (Y-2031-001-0)
- 2) Wiping cloth (7-741-900-53)
- 3) Super fine applicator (Made by NIPPON APPLICATOR (P752D))
- 4) Mirror (Small oval type) (J-6082-840-A)
- 5) Screwdriver for tape path (J-6082-026-A)
- 6) Torque driver (J-9049-330-A)
- 7) TG1 adjustment jig (FWD position adjustment) (J-6082-420-A)
- 8) Mode selector conversion board (C) (J-6082-417-A)
- 9) Tracking tape (XH2-1A1) (NTSC/PAL) (8-967-999-03)
- 10) Mini DV torque cassette (J-6082-360-A)
- 11) Mode selector II (J-6082-282-A)
- 12) Mode selector II ROM (Corresponds to C mechanism) (J-6082-314-D)
- 13) Bending stick (J-6082-419-A)

2-2. PARTS REPLACEMENT

Precautions

For details on removing the cabinet and board, refer to "2. DISASSEMBLY". For details on the replacement of mechanism parts (removal or attaching), refer to the respective flowcharts, and perform the procedure given.

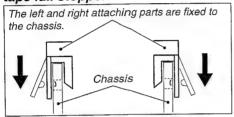
2-2-1. Tape Fall Stopper, HC Roller and HC Arm

Removing method: Spread out the left and right attaching parts

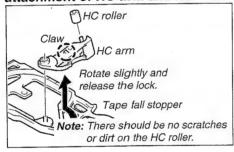
and remove them upwards.

Attaching method: Refer to the Details diagram.

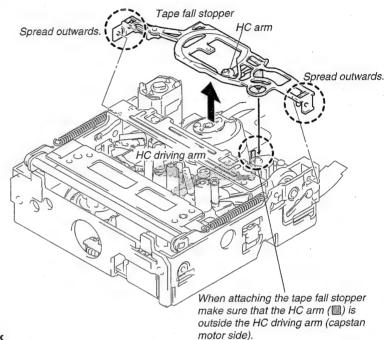
Details diagram on attachment of tape fall stopper



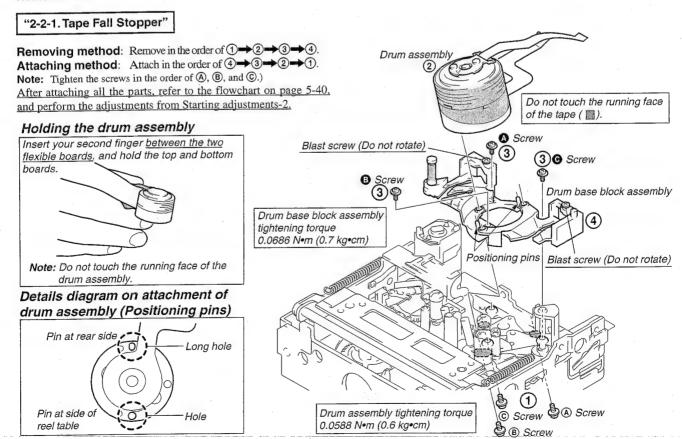
Details diagram on removal and attachment of HC arm and HC roller



2-2-2. Drum Assembly and Drum Base Block Assembly



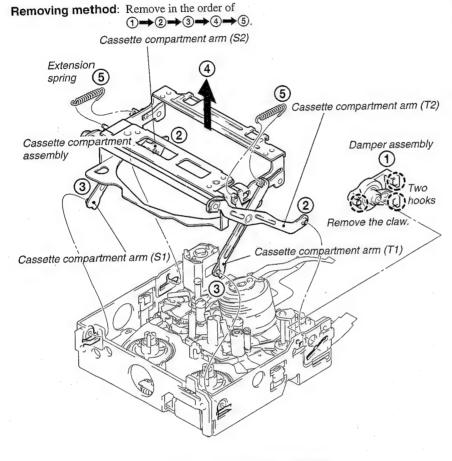
Remove the



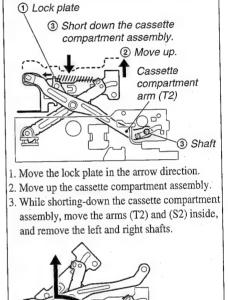
2-2-3. Damper Assembly, Cassette Compartment Assembly and Extension Spring

Remove the



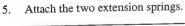


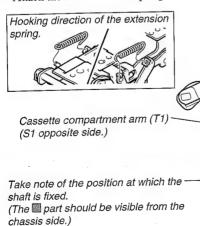
Details diagram on removal of cassette compartment assembly



Attaching method: Attach in the order of ①→②→③→④. Note: Be careful not to deform the cassette compartment.

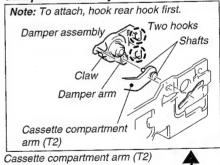
- Insert the left and right shafts of the cassette compartment arms (S1) and (T1) into the chassis.
- Push down the cassette compartment assembly in the direction
- 3. Insert the left and right shafts of the cassette compartment arms (S2) and (T2) into the chassis.
- Attach the damper assembly.





Details diagram on attachment of damper assembly

4. Move forward until the part disconnects.



(S2 opposite side.)

Attach the claw. Damper assembly (4)

4) Hook the hook. Damper arm

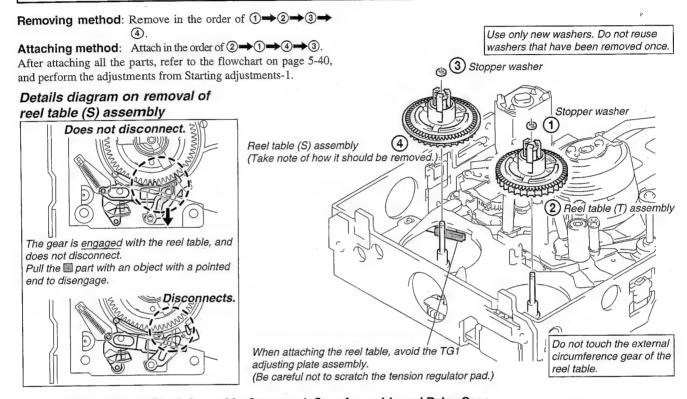
> Take note of the position at which the shaft is fixed. (The damper arm should also be fixed to the same shaft.)

2-2-4. Reel Table (S) / Reel Table (T) Assembly

Remove the

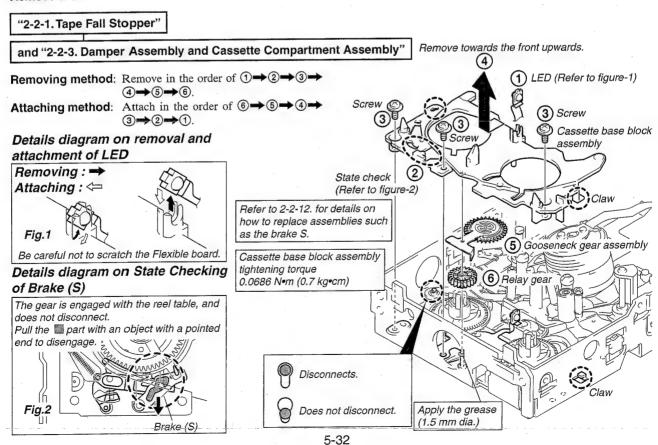


and "2-2-3. Damper Assembly and Cassette Compartment Assembly"

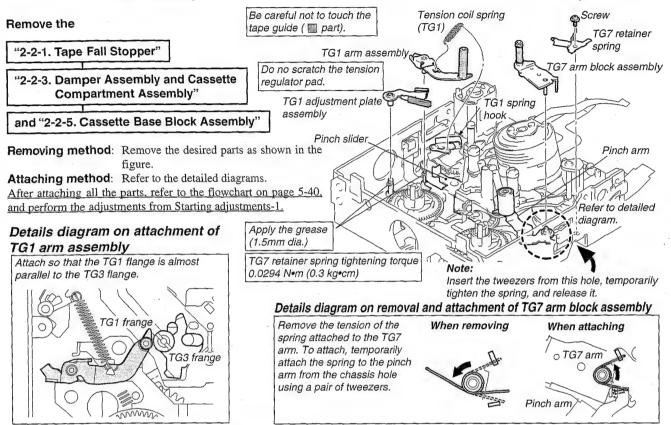


2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear

Remove the

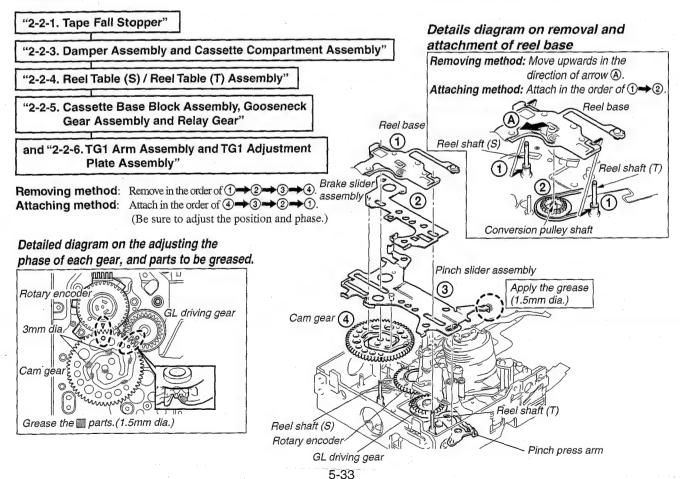


2-2-6. TG1 Adjustment Plate Assembly, Tension Coil Spring (TG1), TG1 Arm Assembly, TG7 Retainer Spring and TG7 Arm Block Assembly

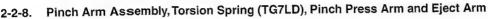


2-2-7. Brake Slider Assembly, Pinch Slider Assembly and Cam Gear

Remove the

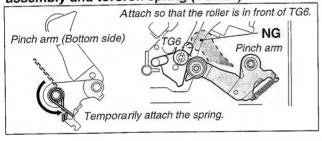


Screw tightening torque tolerance. 0.0098 N.m (0.1 kg.cm)

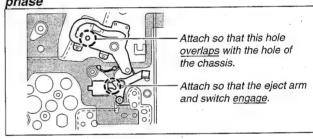


2-2-8. Pinch arm assembly Remove the Pinch press arm Eiect arm "2-2-1. Tape Fall Stopper" "2-2-3. Damper Assembly and Cassette Compartment Assembly" Torsion spring "2-2-4. Reel Table (S) / Reel Table (T) Assembly" (TG7LD) "2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear" "2-2-6. TG1 Arm Assembly, TG1 Adjustment Plate Assembly and TG7 Arm Block Assembly" and "2-2-7. Brake Slider Assembly and Pinch Slider Assembly" Removing method: Remove in the order of ①→②→③→④ Attaching method: Attach in the order of ④→③→②→①. (Be sure to adjust the position and phase.)

Details diagram on attachment of pinch arm assembly and torsion spring (TG7LD)



Details diagram on adjustment or position and phase



2-2-9. GL Block Assembly, GL Driving Gear and HC Driving Arm

Remove the

"2-2-1. Tape Fall Stopper"

"2-2-3. Damper Assembly and Cassette Compartment Assembly"

"2-2-2. Drum Assembly and Drum Base Block Assembly"

"2-2-4. Reel Table (S) / Reel Table (T) Assembly"

"2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear"

"2-2-6. TG1 Arm Assembly, TG1 Adjustment Plate Assembly and TG7 Arm Block Assembly"

"2-2-7. Brake Slider Assembly, Pinch Slider Assembly and Cam Gear"

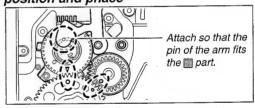
and "2-2-8. Pinch Arm Assembly"

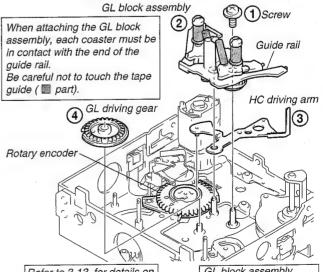
Removing method: Remove in the order of 1 > 2 - 3 - 4. Attaching method: Attach in the order of ④→③→②→①.

(Be sure to adjust the position and phase.)

After attaching all the parts, refer to the flowchart on page 5-40, and perform the adjustments from Starting adjustments-1.

Details diagram on adjustment of position and phase

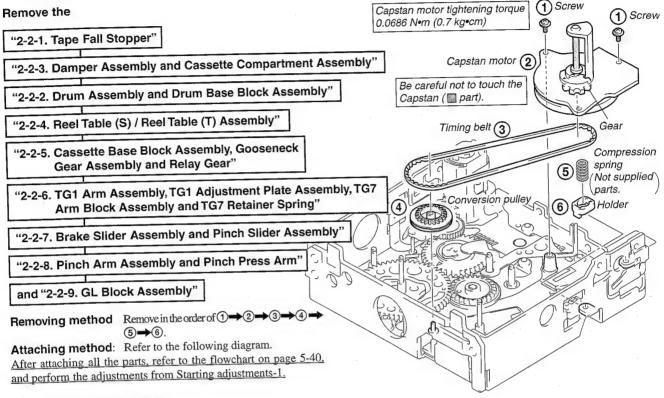




Refer to 3-13. for details on how to replace assemblies such as the guide rail.

GL block assembly tightening torque 0.0686 N•m (0.7 kg•cm)

2-2-10. Capstan Motor, Conversion Pulley, Timing Belt and Holder

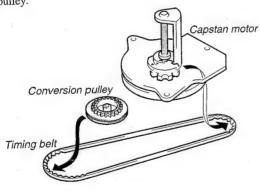


Attachment of Timing Belt

 Refer to "Removing method", and attach the compression spring (TG7) and holder to the chassis.

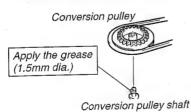
2. Attach the timing belt to the capstan motor and the conversion pulley.

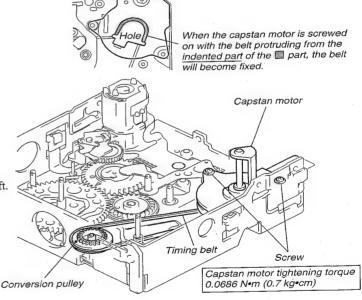
5. After attaching, pull the timing belt lightly, and check that the movements of the conversion pulley and gear at the back of the capstan motor are linked.



Attach the conversion pulley to the conversion pulley shaft.
 Attach the capstan motor to the chassis.

4. Secure the capstan motor with the screw.





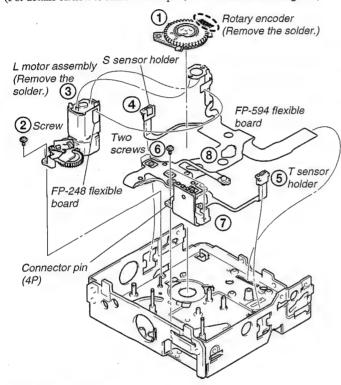
Screw tightening torque tolerance. 0.0098 N.m (0.1 kg.cm)

2-2-11. L Motor Block Assembly and FP-594 Flexible Board First, remove

all parts from 2-2-1 to 2-2-10

Removing method: Remove in the order of $(1 \rightarrow 2 \rightarrow 3 \rightarrow 4) \rightarrow (5 \rightarrow 6) \rightarrow (7 \rightarrow 8)$.

(For details on how to remove each part, refer to the detailed diagram.)



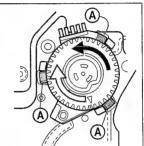
Detailed diagram on removal and attachment of rotary encoder

Removing method:

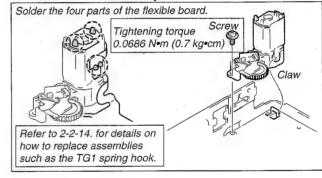
Remove the solder, and rotate the rotary encoder in the \leftarrow direction. (The three parts of part (A) should be visible.)

Attaching method:

Rotate the rotary encoder in the Higher three parts of part should be hidden.) And then solder.



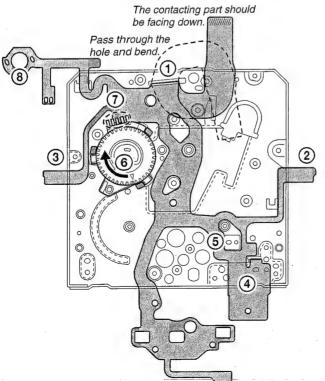
Detailed diagram on removal and attachment of L motor block assembly



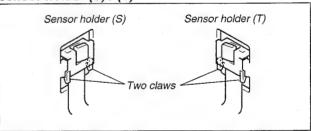
Attaching method:

Refer to the following diagram, for attaching the FP-594 flexible board, and attaching the parts in the order of ①→②→③→④→⑤→⑥→⑦→⑧.

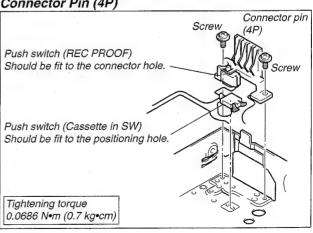
(For attaching each part, refer to each detailed diagram.)



Detailed diagram on removal and attachment of sensor holder (S) / (T)

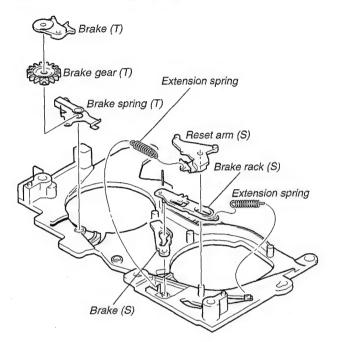


Detailed diagram on removal and attachment of Connector Pin (4P)

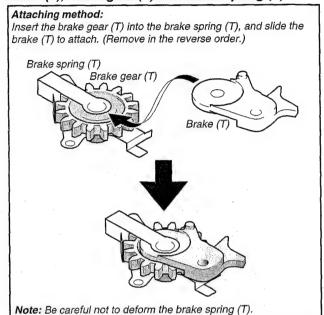


2-2-12. Reset Arm (S), Brake (S), Brake Rack (S), Brake (T), Brake Gear (T), Brake Spring (T) and Extension Spring

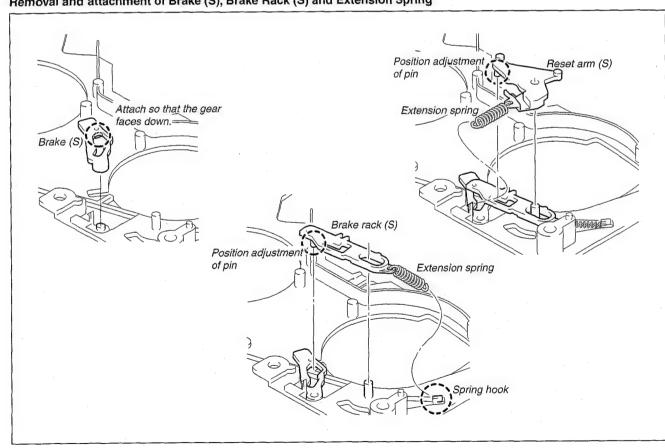
Removal or attaching method



Detailed diagram on removal and attachment of brake (T), brake gear (T) and brake spring (T)



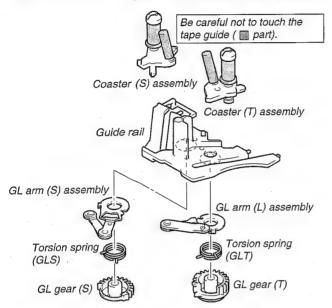
Removal and attachment of Brake (S), Brake Rack (S) and Extension Spring



2-2-13. Coaster (S) / (T) Assembly, GL Arm (S) / (T) Assembly, Guide Rail, GL Gear (S) / (T) and Torsion Spring (GLS) / (GLT)

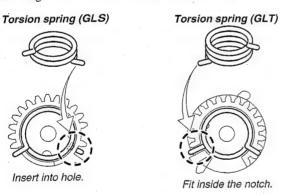
Removing method

• Refer to the detailed diagram on the right, and remove each part.

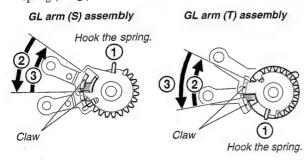


Assembling the GL Block Assembly

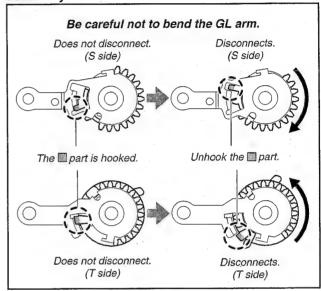
Attach the tension coil spring to each gear.
 To differentiate the S side and T side, the side with more coils is the T side. The S side has less coils. Face the ends of the spring towards you, the tip of the coil (lower side) is positioned at the right for the S side and at the left for the T side.



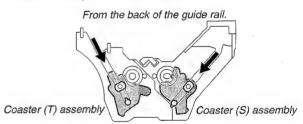
2. Hook the spring to the GL arm, and rotate in the →② direction until the claw of the GL arm passes over the part, and the becomes visible. When the GL arm is completely inserted, the GL arm claw will pass below the part by the tension of the spring (→③).



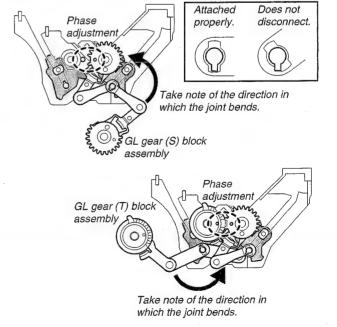
Detailed diagram on removal of GL arm (S) / (T) assembly



3. Attach the respective coaster assemblies.



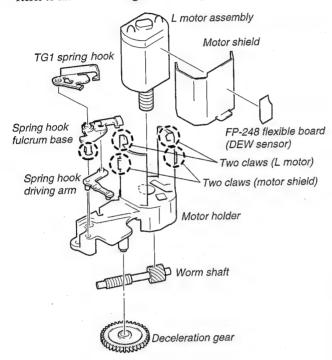
 Attach the GL gear block assembly in the order of the S and T sides.



2-2-14. L Motor Assembly, Motor Shield, FP-248 Flexible Board, TG1 Spring Hook, Spring Hook Fulcrum Base, Spring Hook Driving Arm, Worm Shaft, Deceleration Gear and Motor Holder

Removing method

• Refer to the detailed diagram on the right, and remove each part.



Removal of TG1 spring hook

Rotate to the left slightly opened.

Unhooks.

Does not disconnect.

Disconnects here.

Removal of motor shield and worm shaft

2

Motor shield

Claw

Motor holder
(Top side)

Removal of motor shield and worm shaft

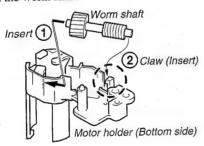
Amotor shield

Claw

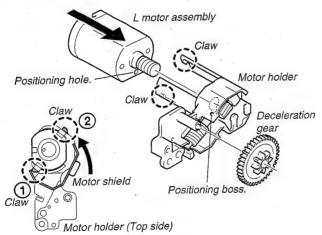
Motor holder
(Bottom side)

Attaching method

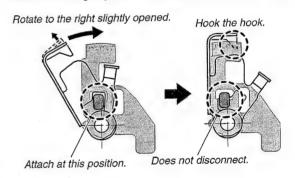
1. Attach the worm shaft.



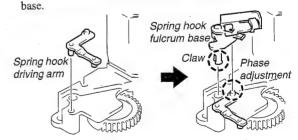
Attach the L motor assembly, motor shield and deceleration gear.

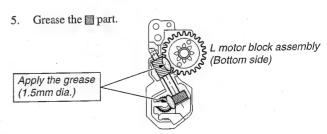


3. Attach the TG1 spring hook to the spring hook fulcrum base.



4. Attach the spring hook driving arm and spring hook fulcrum

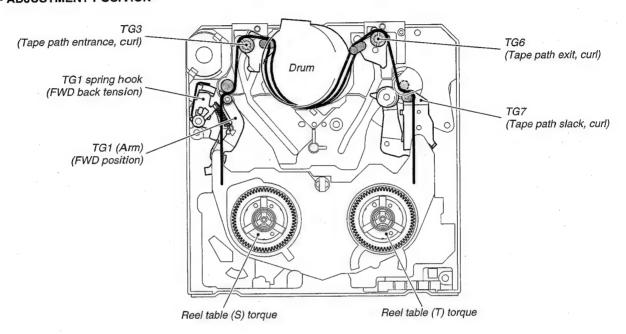




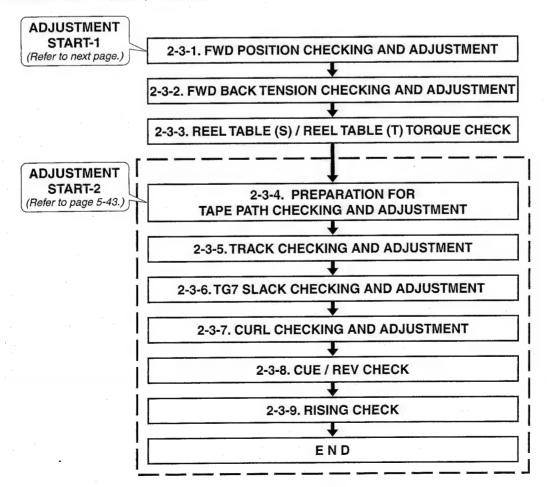
2-3. CHECK AND ADJUSTMENT

When the parts of the tape path (tape guide and reel table, etc.)
have been removed or parts have been replaced, adjust the
following parts and according to the flowchart below.

• ADJUSTMENT POSITION



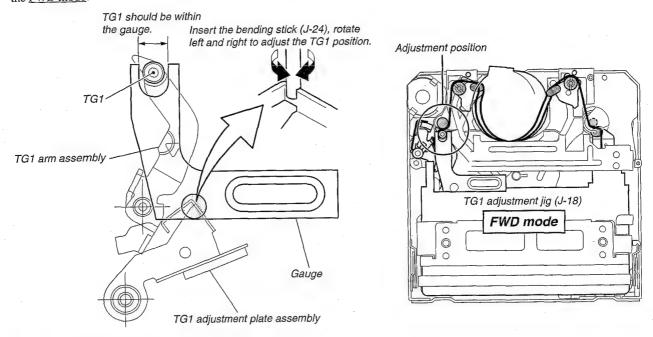
ADJUSTMENT ORDER (Flowchart)



2-3-1. FWD Position Checking and Adjustment

Checking / adjusting method

Bend the TG1 adjustment plate with the bending stick (J-24) so that the TG1 flange external circumference, including fluctuation, is within the gauge range while the TG1 adjustment jig (J-18) runs in the FWD mode.



2-3-2. FWD Back Tension Checking and Adjustment

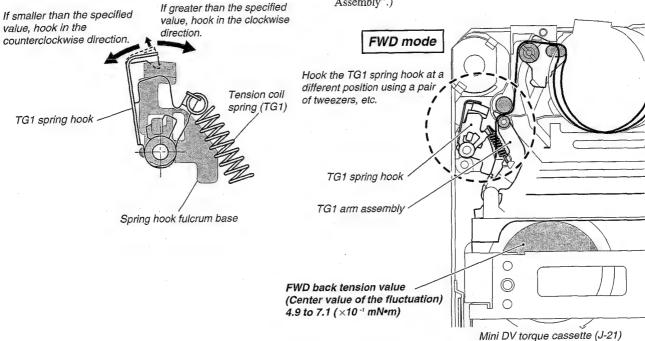
Checking / adjusting method

Check the gauge value (reel table (S) side) of the mini DV torque cassette (J-21) in the FWD mode. Adjust the position of the TG1 spring hook so that the gauge value satisfies the specified value. If the specified value is not satisfied, hook the TG1 spring hook claw to the middle position, and check that the FWD position is correct. If not correct, adjust the FWD position again, and check the FWD back tension again.

If the FWD position is correct but the specified value for the FWD back tension is not satisfied, replace the tension coil spring (TG1), and perform this adjustment again.

(For details on how to replace, refer to "2-2-6. Tension coil spring (TG1)".)

If the fluctuations of the FWD back tension are great and the specified value is not satisfied, replace the reel table S assembly. (For details on how to replace, refer to "2-2-4. Reel Table (S) Assembly".)



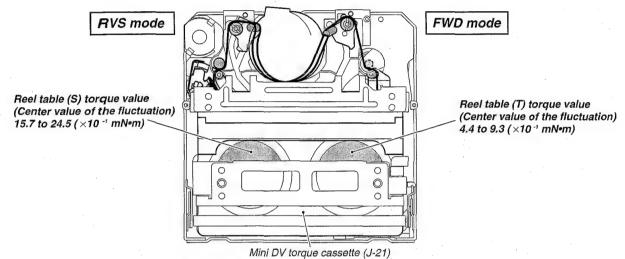
2-2-3. Reel Table (S) / Reel Table (T) Torque Check

• Checking the Reel table (S) side

Check the gauge value (reel table (S) side) of the mini DV torque cassette (J-21) in the <u>RVS mode</u>.

• Checking the Reel table (T) side

Check the gauge value (reel table (T) side) of the mini DV torque cassette (J-21) in the FWD mode.



If the specification is not satisfied, check the 4-1 FWD position, and if no problems, replace the respective reel tables, and check again.

(For details on how to replace, refer to "2-2-4. Reel Table (S) / Reel Table (T) Assemblies".)

Preparation for Tape Path Checking and 2-3-4. Adjustment

Preparations before adjustment 1 (Connection and setting)

Clean the tape running side. (Refer to "2-4-2. Cleaning of Tape Path System".)

Connect the adjustment remote commander (J-5) to the LANC jack.



Turn the HOLD switch of the adjustment remote commander to the ON position.

Connect an oscilloscope to VI-151 board CN2904 via the CPC-8 jig (J-6082-388-A).

Channel 1: VI-151 board, CN2904 Pin @ (Note) External trigger: VI-151 board, CN2904 Pin 1

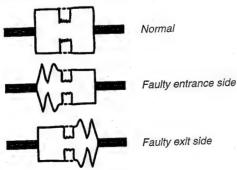
Note: Connect a 75 Ω resistor between pins @ of CN2904 and 18

75 Ω resistor (Parts code: 1-247-804-11)

CN2004 of VI-151 board

CN2904 of VI-151 board					
Pin No.	Signal Name	Pin No.	Signal Name		
1	LANC SIG	2	EVF BL +		
3	EVF BL -	4	EVF VG		
5	EVF VCO	6	GND		
7	PD VG	8	PD VCO		
9	H START	10	XHD/PSIG		
11	PANEL COM	12	TMS		
13	TCK	14	TDI		
15	TDO	16	GND		
17	SWP	18	RF IN/LANC JACK IN		
19	GND	20	RF MON		
1.7	0				

- 5. Playback the alignment tape for tracking (J-20). (XH2-1
- Select page: 3, address: 33, and set data: 08.
- Select page: 3, address: 26, and set data: 31.
- Check the states at the entrance and exit of the RF waveform. If not flat at either side, perform the adjustments from "Flowchart Adjustment start-2" on page 5-40.
- After completing the adjustment, perform "Procedure after checking operations".

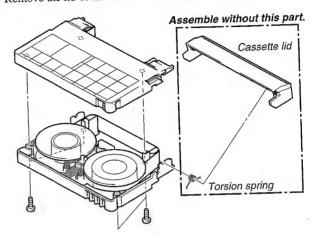


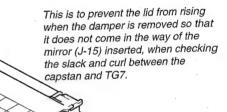
Procedure after operations

- Connect the adjustment remote commander to the LANC jack and set the HOLD switch to the ON position.
- Select page: 3, address: 26, and set data: 00.
- Select page: 3, address: 33, and set data: 00.
- Disconnect the power of the unit.

 Preparations before adjustment 2 (Preparing an exclusive tracking tape (J-20))

Remove the lid of the cassette due to the C mechanism structure.





Exclusive tracking tape

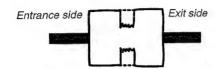
2-3-5. Track Checking and Adjustment

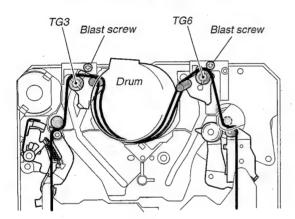
· Checking / adjusting method

Run the tracking tape (J-20) in the <u>PLAYBACK mode</u>, and check that the RF waveform is flat at both the entrance and exit.

PLAY mode

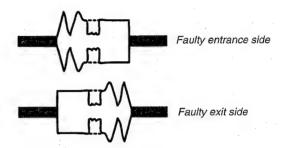
Normal waveform





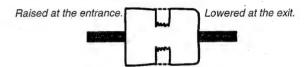
· If not flat

If the waveform at the entrance is bad, rotate TG3. If that at the exit is bad, rotate TG6 to flatten the waveform.



Tips for adjustment

The tape path waveform at the entrance and exit should both be flat, or that at the <u>entrance should be slightly raised</u> and that at the <u>exit should be lowered</u>. If that at the entrance is slightly lowered especially, problems such as sound drop may occur.



If the waveform does not become flat even if the guides are rotated at the entrance and exit, the characteristics may be faulty of the tracking tape with time. Check again using a new tracking tape. If the waveform still does not become flat, the coaster assembly and drum base block assembly may be faulty.

(For details on how to replace, refer to "2-2-2. Drum Base Block Assembly or 2-2-9. GL Block Assembly".)

2-3-6. TG7 Slack Checking and Adjustment

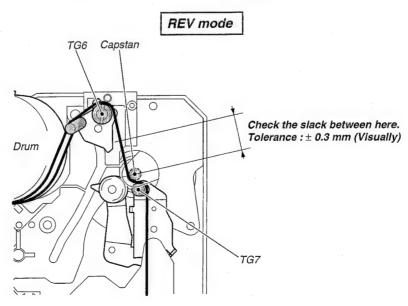
Checking / adjusting method

Run the tracking tape (J-20) in the <u>REV mode</u>, and visually check from right above the slack between the capstan and TG6. If the slack is great, rotate TG7 to satisfy the specified value.

· If the slack occurs

If the <u>slack</u> can not be corrected, the TG7 arm block assembly may be faulty.

(For details on how to replace, refer to "2-2-6. TG7 Arm Block Assembly".)



2-3-7. Curl Checking and Adjustment

· Checking / adjusting method

Run the tracking tape (J-20) (exclusive) in the <u>CUE mode</u> or <u>REV mode</u>, and check that the tape runs along each flange.

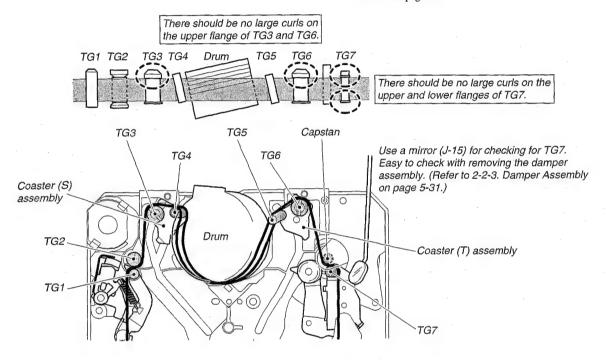
Also check that there are no <u>large curls</u> on each tape guide.

• If the curl is large or there are clearances

If the TG3 curl is large or <u>clearances</u> exist, replace the coaster (S) assembly. If the TG6 curl is large, or <u>clearances</u> exist, replace the coaster (T) assembly. If curls or <u>clearances</u> exist on the TG7, rotate TG7 and adjust its height.

Note: Be careful not to rotate TG7 excessively.

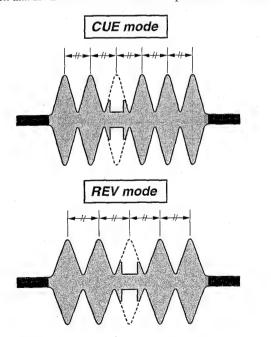
For details on how to replace the coaster (S) / (T) assembly, refer to 2-2-13 on page 5-38.



2-3-8. CUE / REV Check

Checking method

Run the tracking tape (J-20) in the <u>CUE mode</u> or <u>REV mode</u>, and check that the intervals of the waveform peaks are consistent.



If not even

If the waveform peaks are not even, perform "Tracking adjustment" again.

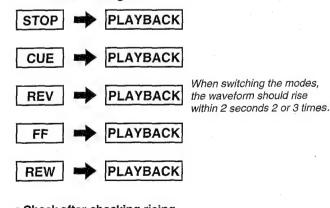
2-3-9. Rising Check

Checking method

Check that when the tracking tape (J-20) is switched from the <u>STOP</u>. <u>CUE</u>, <u>REV</u>, <u>FF</u>, <u>REW</u> modes to the <u>PLAYBACK</u> mode, the waveform rises horizontally <u>within 2 seconds</u>.

Perform this 2 or 3 times.

Mode changes



· Check after checking rising

- Check that the tape loads and unloads smoothly.
- Play a self-recorded or already recorded tape, and check that the sound and images are normal.

2-4. PERIODIC CHECK

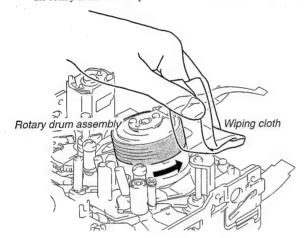
• Carry out the following maintenance and periodic checks not only to fully display the functions and performance of the set, but also for the equipment and tape. After repairing, service the set as follows, regardless of the length of use.

2-4-1. Cleaning of Rotary Drum Assembly

1. Press a wiping cloth (J-13) moistened with cleaning fluid (J-12) against the rotary drum assembly gently, and clean it while rotating the rotary drum assembly slowly with your finger in the counterclockwise direction.

Note: Do not rotate the motor on power or rotate the rotary drum assembly in the clockwise direction with your finger. The head tip will also be damaged if the wiping cloth is moved perpendicularly against it.

Therefore, be sure to follow the above instructions when cleaning the rotary drum assembly.

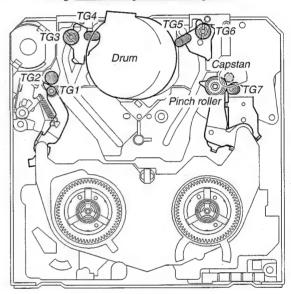


2-4-2. Cleaning of Tape Path System

 Clean the tape path systems (TG1 to TG7 and capstan) and the lower drum using a super fine applicator (J-14) moistened with cleaning fluid.

Note 1: Make sure that no oil or grease of the link mechanisms sticks to the super fine applicator (J-14).

Note 2: Do not use a applicator moistened with alcohol to the other guide cleaning. But clean the pinch roller using alcohol.



2-4-3. Periodic Checks

Location of Maintenance and Check		Hours of Use (H)										Remarks
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	Tiemains
	Cleaning of tape path surface	0	0	0	0	0	0	0	0	0	0	·
	Cleaning and degaussing of rotary drum assembly	0	0	0	0	0	0	0	0	0	0	Be careful of the oil.
Driving system	Timing belt			-		_		_				Make sure that no
	Capstan (Bearing)			_		_				_		oil gets on the tape path surface.
	Loading motor	_		_		_		_				X-3948-346-1
Performance Confirmation	Abnormal noise											
	Back tension measurement			_						_		
	Brake system					_		_		_		
	FWD/RVS torque measurement			_			_			_		

Note 1: When overhauling, refer to the checks above and replace parts.

Note 2: Greasing

Always use the specified grease. If the viscosity differs, various problems may occur.

(Use SG-941 for all parts of the C mechanism.)

Check the quantity of grease when installing the parts which is needed to apply the grease.

• FLOIL (SG-941): Part No. 7-662-001-39

○: Cleaning □: Confirmation

5-3. VIDEO SECTION ADJUSTMENTS

NTSC model: DSR-PD100 PAL model: DSR-PD100P

PREPARATIONS BEFORE ADJUSTMENTS

Use the following measuring instruments for video section adjustments.

3-1-1. Equipment Required

1) TV monitor

Oscilloscope (dual-phenomenon, band above 30 MHz with delay mode) (Unless specified otherwise, use a 10:1 probe.)

Frequency counter 3)

4) Pattern generator with video output terminal.

5) Digital voltmeter

- 6) Audio generator
- Audio level meter 7)
- Audio distortion meter
- Audio attenuator
- 10) Regulated power supply

11) Alignment tapes

- Tracking standard (XH2-1) Parts code: 8-967-997-01
- SW/OL standard (XH2-3)

Parts code: 8-967-997-11

Audio operation check for NTSC (XH5-3)

Parts code: 8-967-997-51

System operation check for NTSC (XH5-5)

Parts code: 8-967-997-61:

• BIST check for NTSC (XH5-6)

Parts code: 8-967-997-71

Audio operation check for PAL (XH5-3P)

Parts code: 8-967-997-55

System operation check for PAL (XH5-5P)

Parts code: 8-967-997-66

• BIST check for PAL (XH5-6P)

Parts code: 8-967-997-76

12) Adjustment remote commander (J-6082-053-B)

13) CPC-8 jig (J-6082-388-A)

- 14) Extension cable (60P, 0.5 mm) For extension between the VC-208 board (CN761) and the CK-80 board (CN7208) (J-6082-431-A)
- 15) Extension cable (100P, 0.5 mm)

For extension between the VC-208 board (CN900) and the VI-

151 board (CN2901) (J-6082-432-A)

16) Extension cable (39P, 0,3 mm) For extension between the JK-163 board (CN7102) and the VI-151 board (CN2903) (J-6082-433-A)

3-1-2. Precautions on Adjusting

1) The adjustments of this unit are performed in the VTR mode or camera mode.

To set to the VTR mode, set the power switch to "VTR" (or "PLAYER") or set the "Forced VTR Power ON mode" using the adjustment remote commander (Note 1).

To set to the Camera mode, set the power switch to "CAMERA" or set the "Forced Camera Power ON mode" using the adjustment remote commander (Note 2).

After completing adjustments, be sure to exit the "Forced VTR Power ON Mode" or "Forced Camera Power ON Mode". (Note 3)

- 2) The front panel block (MA-333 board, microphone unit, focus ring, focus switch) need not be connected except during "Battery End Adjustment", and "Audio adjustments". To remove, disconnect the following connectors.
 - 1. MA-333 board CN7304 (26P, 0.5 mm)
- 3) The viewfinder (VF-121 board, LB-55 board) and upper cabinet (LCD window, ED-48 board) are need not be connected except during "Battery End Adjustment". To remove them, disconnect the following connectors.
 - 1. VI-151 board CN2905 (20P, 0.5 mm)
 - 2. CK-80 board CN7207 (24P, 0.5 mm)
 - 3. CK-80 board CN7203 (5P, 0.5 mm)
- 4) Cabinet (R) (Camera function switch (CK-80 board), LCD block, memory card slot) need not be connected except during "Battery End Adjustment". But removing the cabinet (R) (removing the VI-151 board CN2906) means removing the lithium 3V power supply (BT7200), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on the history use (data of page: 2, address: A2 to AA). (Refer to "SELF-DIAGNOSIS FUNCTION" for the self-diagnosis data, and to "5-4.Service Mode" for the data on the history use.)

To remove the cabinet (R) and DC IN jack, disconnect the following connectors.

- 1. VI-151 board CN2906 (60P, 0.5 mm)
- 2. VC-208 board CN761 (60P, 0.5 mm)
- 3. VI-151 board CN3201 (3P, 1.0 mm)
- 5) For extension between the memory card slot(CK-80 board CN7208) and VC-208 board (CN761), use the following extension cable.

J-6082-431-A (60P, 0.5 mm)

- 6) The lens block (CD-202 board) need not be connected except during "Battery End Adjustment". To remove, disconnect the following connectors.
 - 1. VC-208 board CN200 (40P, 0.5 mm)
 - 2. VC-208 board CN351 (8P, 0.5 mm)
 - 3. VC-208 board CN500 (26P, 0.5 mm)
- SE-75 board need not be connected except during "Battery End Adjustment". To remove, disconnect the following connectors. VC-208 board CN400 (6P, 0.5 mm)
- When opening the VC-208 board, use the following extension cable between the VC-208 board CN900 and VI-151 board CN2901.

J-6082-432-A (100P, 0.5 mm)

When opening the cabinet (L), use the following extension cable between the JK-163 board CN7102 and VI-151 board CN2903. J-6082-433-A (39P, 0.3 mm)

- Note 1: Setting the "Forced VTR Power ON" mode (VTR mode)
 - 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.

 The above procedure will enable the VTR power to be turned on with the power switch block (FK-4880) removed.

 After completing adjustments, be sure to exit the "Forced Power ON mode".
- Note 2: Setting the "Forced Camera Power ON" mode (Camera mode)
 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: D, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander.

 The above procedure will enable the camera power to be turned on with the power switch block (FK-4880) removed.

 After completing adjustments, be sure to exit the "Forced Power ON mode".
- Note 3: Setting the "Forced Memory Power ON" mode (Memory mode)
 - 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: D, address: 10, set data: 05, and press the PAUSE button of the adjustment remote commander.

 The above procedure will enable the memory power to be turned on with the power switch block (FK-4880) removed.

 After completing adjustments, be sure to exit the "Forced Power ON mode".
- Note 4: Exiting the "Forced Power ON" mode
 - 1) Select page: 0, address: 01, and set data: 01.
 - 2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
 - 3) Select page: 0, address: 01, and set data: 00.

3-1-3. How to Enter Record Mode Without Cassette

- 1) Connect the adjustment remote commander to the LANC jack.
- Turn the HOLD switch of the adjustment remote commander to the ON position.
- 3) Close the cassette compartment without the cassette.
- Select page: 3, address: 01, set data: 0C, and press the PAUSE button of the adjustment remote commander.
 (The mechanism enters the record mode automatically.)
 Note: The function buttons become inoperable.
- 5) To quit the record mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the record mode, be sure to quit following this procedure.)

3-1-4. How to Enter Playback Mode Without Cassette

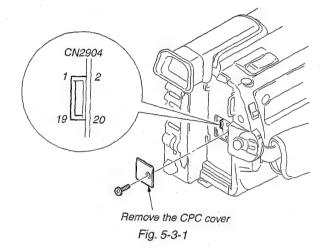
- 1) Connect the adjustment remote commander to the LANC jack.
- 2) Turn the HOLD switch of the adjustment remote commander to the ON position.
- 3) Close the cassette compartment without the cassette.
- Select page: 3, address: 01, set data: 0B, and press the PAUSE button of the adjustment remote commander.
 (The mechanism enters the record mode automatically.)

 Note: The function buttons become inoperable.
- 5) To quit the playback mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the playback mode, be sure to quit following this procedure.)

3-1-5. Adjusting Connectors

Some of the adjusting points of the video section are concentrated at VI-151 board CN2904. Connect the measuring instruments via the CPC-8 jig (J-6082-388-A). The following table lists the pin numbers and signal names of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LACN SIG	2	EVF BL+
3	EVF BL-	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON



3-1-6. Connecting the Equipment

Connect the measuring instruments as shown in Fig. 5-3-2, and perform the adjustments.

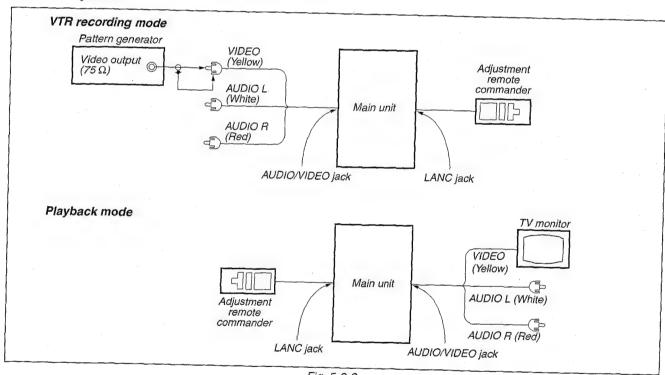


Fig. 5-3-2

3-1-7. Checking the Input Signals

Because the video signal obtained from the pattern generator is used as the adjustment signal for adjusting the VTR section, the video output signal must satisfy the given specifications.

Connect the oscilloscope to the video terminal of the AUDIO/VIDEO jack, and check that the sync signal amplitude of the video signal is approximately <0.286 V> [0.30 V], the amplitude of the video section is approximately <0.714> [0.70 V], the amplitude of the burst signal is approximately <0.286> [0.30 V] and flat, and that the level ratio of the burst signal to the "red" signal is 0.30: 0.60.

The video signal used for adjusting the video section is shown in Fig. 5-3-3.

<>: NTSC model
[]: PAL model

3-1-8. Alignment Tapes

Use the alignment tapes shown in the following table. Use tapes specified in the signal column of each adjustment.

Name	Use
Tracking standard (XH2-1)	Tape path adjustment
SW/OL standard (XH2-3)	Switching position adjustment
Audio operation check (XH5-3 (NTSC), XH5-3P (PAL))	Audio system adjustment
System operation check (XH5-5 (NTSC), XH5-5P (PAL))	Operation check
BIST check (XH5-6 (NTSC), XH5-6P (PAL))	BIST check

Fig. 5-3-3 shows the 75% color bar signals recorded on the alignment tape for Audio Operation Check.

Note: Measure with video terminal (Terminated at 75 Ω)

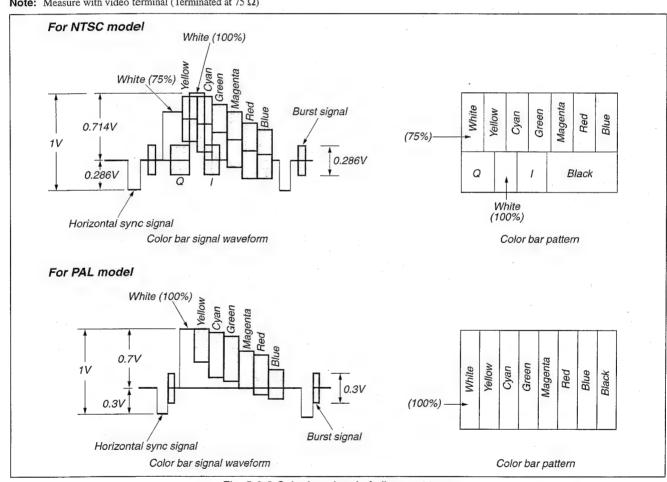


Fig. 5-3-3 Color bar signal of alignment tapes

3-1-9. Input/Output Level and Impedance

Video input/output

Special stereo mini jack

Video signal:

1 Vp-p, 75 Ω unbalanced,

sync negative

S video input/output

4-pin mini DIN

1 Vp-p, 75 Ω unbalanced, Luminance signal:

sync negative

Chrominance signal: 0.286 Vp-p, 75 \Omega unbalanced (NTSC)

: 0.300 Vp-p, 75 Ω unbalanced (PAL)

Audio input/output

Special stereo mini jack Input level: 327 mV

Input impedance: More than 47 kW

Output level: 327 mV (at load impedance 47 k Ω)

Output impedance: Below 2.2 k Ω

3-2. INITIALIZATION OF B, C, D PAGE DATA

1. Initializing the C Page Data

Note: If the page C data is initialized, the following adjustments must be performed again.

- 1) Modification of C page data
- 2) Servo system, RF system adjustments

Adjusting page	C
Adjusting Address	00 to DF

Initializing Method:

- Select page: 0, address: 01, and set data: 01. 1)
- Select page: 3, address: 80, set data: 0C, and press the PAUSE button of the adjustment remote commander.
- Check that the data of page: 3, address: 80 is changed to "1C".
- Perform "Modification of C Page Data".

2. Modification of C Page Data

If the C Page data has been initialized, change the data of the "Fixed data-2" address shown in the following table by manual input.

Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
 - Note: If copy the data built in the different model, the camcorder may not operate.
- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of C Page data

- Select page: 2, address: 00, and set data: 29.
- Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- Perform the "Servo System, RF System Adjustments".

3. C Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the C Page Data")

Fixed data-2: Modified data. (Refer to "2. Modification of C PAGE Data")

		Data)			
Address	Initial	value	Rema	ark	
00	NISC	IAL	Fixed data-1		
01			(Initialized data)		
02	1				
03	1				
04					
05					
06					
07					
08					
09					
0A					
0B	-				
0C	-				
0D					

A al al	1		alue	Remark
Address	NTS	C	PAL	
0E				Fixed data-1
0F				(Initialized data)
10	EE	3		Switching position adj.
11	00	_	00	
12	E	_	EE	
13	00)	00	
14				Fixed data-1
15	-	2	TO.	Cap FG duty adj.
16	E	_	E0	T reel FG duty adj.
1.7	E		2A	AEQ adj.
18	2.		2A	ALQ auj.
19	2.	A.	2P.	Fixed data-1
1A 1B	3	3	33	AEQ adj.
1C		3	33	1,12,2 4.5).
1D	1	5		Fixed data-1
1E	1 2	25	25	AGC center level adj.
1F		E	3E	PLL fo adj.
20		E	3E	
21		DC	DC	APC adj.
22		99	99	LPF fo adj.
23				Fixed data-1
24				
25		88	88	S VIDEO out Y level adj.
26		E3	E3	S VIDEO out Cr level adj.
27		A1	A1	S VIDEO out Cb level adj.
28				Fixed data-1
29				
2A				
2B		04	04	Chroma BPF adj.
2C			1-2	Fixed data-2
2D		17 - No. 2 - N	CONTRACTOR OF THE	Fixed data-1
2E			3.5	Fixed data-2 (Modified data, copy the data built in
2F				
30				the same model.)
31				Fixed data-1
32				Fixed data-1
33		-		Fixed data-2
34				Fixed data-1
35				A IACC CHAIN
36				
38		00	00	Emergency memory address
39		00	00	
3A		00	00	
3F		00	00	
30		00	00	
31		00	00	
31		00		
31		00		
40		00	_	0
4		00		0
4:		00		0
4:	3	00	00	
	4			Fixed data-1

	Initial	value	D
Address	NTSC	PAL	Remark
45			Fixed data-1
46			
47	20	20	PLL fo final adj.
48			Fixed data-1
49			(Initialized data)
4A			
4B			
4C			
4D			
4E			
4F			
50	Salar Cara	a de la caracteria de la composición dela composición de la composición dela composi	AND THE PARTY OF T
51			Fixed data-1
52			
53			
54			
55			
56			
57			
58			
59			
5A]		
5B			
5C			
5D			
5E			
5F			
60	Service Lyternet		Fixed data-2
61		e legie egyt <u>s talde e dalam</u> i	Sang dan berasa di Belanda ning dan penggahan dan pintang dalam dan berasa dan berasa dan berasa dan berasa da Managan banda dan penggahan dan penggahan dan dan berasa dan berasa dan berasa dan berasa dan berasa dan beras
62			Fixed data-1
63			(Initialized data)
64			
65			
66			
67			
68			
69		-	
6A]		
6B			
6C			
6D	1		
6E			Sept. silver some distribution (6) by a sept.
6F	3 2 20		Fixed data-2
70	-		Fixed data-1
71	P 10 191 - 11 1 1 2 2 2 2	41.41.11.11.11.11.11.11.11.11.11.11.11.1	(Initialized data)
72	And the state of t	T oo	Fixed data-2
73	03	03	APC adj.
74			Fixed data-1
75	-		(Initialized data)
76		alitania na nakara s	Fined data 2
77		<u>Laising</u> .	rixed data-2
78	-		Fixed data-1
79	-		(Initialized data)
7A	-		
7B	-		•
7C			

Address	Initial		Ren	nark
	NTSC	PAL		iui i
7D			Fixed data-1	
7E			(Initialized data)	
7F		*****		e esta esta esta esta esta esta esta est
80		ere di Generale	Tixed data 2	
81			Fixed data-1	
82			(Initialized data)	
83				
84				
85				
86	1 1 2 to 4 0 1 1 1 1	****		
87			Fixed data-2	
88				
89				÷
8A			<u> </u>	
8B			Fixed data-1	
8C	THE RESERVE SECTION AND ADDRESS.	Cas far A	(Initialized data)	The State of the S
8D	*10,100 V		Fixed data-2	
8E	Company		or and have been been compressed as a company of the company of th	orith Maria Barra (1965) Light Maria (1965)
8F			Fixed data-1	
90			(Initialized data)	
91				
92				
93				
94	1			
95]			
96	1			
97	1			
98				
99	1			
9A	1		4	
9B				
9C				
9D	,		**	
9E				
9F				
A0				
A1				
A2			·	· .
A3	4 (60		Fixed data-2	
A4			Fixed data-1	
A5			(Initialized data)	
A6				
A7				
A8				
A9				
AA	80	80	PLL adj.	
AB			Fixed data-1	
AC				
AD	S 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	V. P. D. S.	Fixed data-2	
AE		no destroite terre	Fixed data-1	and saiding ABS at the
AF			A MANUAL CONTRACTOR OF THE PARTY OF THE PART	
B0			· T	
Bì		77.5	Fixed data-2	, , , , , , , , , , , , , , , , , , ,
B2			I Inou unu z	* **
B3				Section 1
B4			A STATE OF S	and the second of the second o

	Initial	value	Domork	
Address	NTSC		Remark	
B5	475 7		Fixed data-2	
В6		giana Maria Maria	Comment of the commen	
В7			Fixed data-1	W 10.1 V.
В8	ro en la cal	O (SA)	Fixed data-2	· (
В9			Fixed data-1	
BA	1		(Initialized data)	
BB]			1000
BC	100		Fixed data-2	·
BD		erre e Style Marie Style Arrestation		:
BE	3.1 Mr. 1		Same and the second	احققيب
BF	_		Fixed data-1	
C0			(Initialized data)	
C1				
C2				
C3				
C4				
C5				
C6	_			
C7				
C8	_			
C9	_			
CA	_			
СВ	_			
CC	_			
CD	_			
CE				
CF	_			
D0				
D1 D2				
D2	-			
D3				
D5	-			
D6				
D7				
D8				
D9				
DA				
DB				
DC				
DD				
DE				
DF				
E0 to				

Table. 5-3-2

4. Initializing the D Page Data

Note: If the D page data is initialized, the following adjustments must be performed again.

- 1) Modification of D page data
- 2) Video system adjustments
- 3) Color electronic viewfinder system adjustments
- 4) LCD system adjustments
- 5) Battery end adjustment

Adjusting page	D
Adjusting Address	10 to 8F

Initializing Method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 80, set data: 0D, and press the PAUSE button
- 3) Check that the data of page: 3, address: 80 is changed to "1D".
- 4) Perform "Modification of D Page Data".

5. Modification of D Page Data

If the D Page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set data: 01.
- 2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camcorder may not operate.

- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value.
 If not, change the data to the initial value.

Processing after Completing Modification of D Page data

- 1) Select page: 2, address: 00, and set data: 29.
- 2) Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- 3) Perform the following adjustments.
 - 1) Video system adjustments
 - 2) Color electronic viewfinder system adjustments
 - 3) LCD system adjustments
 - 4) Battery end adjustment

6. D Page Table

Note: Fixed data-1: Initialized data. (Refer to "4. Initializing the D Page Data")

Fixed data-2: Modified data. (Refer to "5. Modification of D PAGE Data")

Address	Initial value		Remark
	NTSC	PAL	Heman
00 to 0F			
10	00	00	Test mode
11			Fixed data-1
12	İ		(Initialized data)
13		. (Fixed data-2
14		أعدين يال	(Modified data, copy the data built in
15			the same model.)
16			Fixed data-1
17			(Initialized data)
18	Alexander	144	Fixed data-2

Address	Initial NTSC	value PAL	Remark
19			Fixed data-2
1A		ary many and many many	Fixed data-1
1B	İ		(Initialized data)
1C		A STATE OF THE STA	Fixed data-2
1D	and the second	awmen y - Phyllips Congres	Fixed data-1
1E			
1F			
20	¥430.5		Fixed data-2
21	Liver second day	inerthan - many	Fixed data-1
22			
23			
24	Mar 1 years of the	and the second	Fixed data-2
25	taravai a ca	3 4 164	
26			Fixed data-1
27	240.02800	Direction of the second	Fixed data-2
28	Episkay Kalib	Nesta Seria	
29	Control was an array	day in a few or	Fixed data-1
2A		Section 1	Fixed data-2
2B	a digrama di di La di Seva Ligari di		(Modified data, copy the data built in
2C	A 10 10 10 10 10 10 10 10 10 10 10 10 10		the same model.)
2D	un interest September	AND THE SAME	
2E	ANNAL STA		Fixed data-1
	-		Fixed data-1
2F	OD	90	Dottom and adi
30	9D	90	Battery end adj.
31	97		
32	A9	A9	
33	AD	AD	
34	B5	B5	
35		特别·特别的 (2016) 特别·特别的	Fixed data-2
36	12211		The Boston of Market State of
37			Fixed data-1
38	F4567777788		
39			Fixed data-2
3A.	Provide and		sage and the second of the sec
3В			Fig. 5. The first property of the same and the same of
3C		Land Advantage and	Fixed data-1
3D	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the same	Fixed data-2
3E	a typica		(Modified data, copy the data built in
3F	1.		the same model.)
40			· · · · · · · · · · · · · · · · · · ·
41		000 00 1 N - 100 -	Fixed data-1
42	5182. 334		Fixed data-2
43			Fixed data-1
44	y na markinganini	i injeleste en la	Fixed data-2
45			Fixed data-1
46			
47			
48			
49	and the second	and the second s	Fixed data=2
4A			Fixed data-1
4B			Fixed data-2
4C			Fixed data-1
4D		1.31.4	Fixed data-2
4E	1		The second section of the second section of the second section of the second section of the second section of the second section section of the second section
4F	1		Language Control of the Control
71	11 / 2		and the second of the second o

	Initial	value	
Address	NTSC	PAL	Remark
51			Fixed data-1
52			
53			
54			
55			
56			
57			
58			
59			
5A			
5B			
5C			•
5D			
5E .			
5F			
60			
61			
62			
63	1		
64			Fixed data-2
65		A serve of Medicine	o de la Comunicación de la Colombia de la Colombia de la Colombia de la Colombia de la Colombia de la Colombia La las destruciones de la Colombia de la Colombia de la Colombia de la Colombia de la Colombia de la Colombia d
66			Fixed data-1
67			(Initialized data)
68			
69			
6A			Fixed data-2
6B.			지하는 경기를 받는 것이 되었다. 그는 것이 되었다. 그는 것이 되었다. 사람들은 경기를 보는 것이 되었다. 그는 물목을 보는 것이 되었다. 그는 것이 되었다. 사람들은 것이 되었다. 하는 것이 되었다면 하는 것이 되었다.
6C			
6D			Fixed data-1
6E		ny de odka. Nijakitesa	Fixed data-2
6F		ang Garagada Lippa Jakawa	on the state of the second of
70			kaj krijas krijas (jajas kili kilijas kilijas kilijas kaj alikas k augusta kilijas jajas kaj kilijas kilijas kilijas kilijas kilijas kilijas kilijas kilijas kilijas kilijas kilij
71	80	80	White balance adj. (EVF)
72	80	80	
73			Fixed data=2
74		,	Fixed data-1
75	80	80	VCO adj. (EVF)
76	В0	В0	Backlight consumption current adj. (EVF)
77		Was Villa Common	Fixed data-1
78		Andreas Commission of the Comm	Fixed data-2
79			Fixed data-1
7A	98	98	Bright adj. (EVF)
7B	80	80	Contrast adj. (EVF)
7C		To a	Fixed data-2
7D	1974	Maria Algoria	
7E			Fixed data-1
7F			
80	A0	A0	White balance adj. (LCD)
81	70	70	
82	C8	C8	D range adj. (LCD)
83	94	94	V-COM level adj. (LCD)
84	90	90	VCO adj. (LCD)
85	5A	5A	V-COM adj. (LCD)
86			Fixed data-1
87			
88			

Adduses	Initial	value	Remark	
Address	NTSC	PAL	nemark	
89			Fixed data-1	
8A	58	58	Bright adj. (LCD)	
8B			Fixed data-2	 177
- 8C	62	62	Contrast adj. (LCD)	
8D			Fixed data-2	1.4
8E			Fixed data-1	
8F				
90 to FF				

Table. 5-3-3

7. Initializing the B Page Data

Note: If the B page data is initialized, the following adjustments must be performed again.

1) Modification of B page data

ļ	Adjusting page	В
	Adjusting Address	00 to DF

Initializing Method:

- 1) Set the power switch to the MEMORY position.
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
- 4) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.
- Select page: 5, address: 01, set data: F3, and press the PAUSE button.
- 6) Select page: 5, address: 00, set data: 01, and press the PAUSE button
- 7) Select page: 5, address: 02, and check that the data is "00".
- 8) Perform "Modification of B Page Data".

8. Modification of B Page Data

If the B Page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Processing before Modification of B Page data

- Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
- Select page: 2, address: 8F, set data: 00, and press the PAUSE button.

Modifying Method:

- Before changing the data, select page: 0, address: 01, and set data: 01.
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
 - Note: If copy the data built in the different model, the camcorder may not operate.
- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.

Processing after Completing Modification of B Page data

- 1) Select page: 2, address: 00, and set data: 29.
- Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.

9. B Page Table

Note: Fixed data-1: Initialized data. (Refer to "7. Initializing the B Page Data")

Fixed data-2: Modified data. (Refer to "8. Modification of B PAGE Data")

	Data'')
Address	Remark
00	Fixed data-1
01	(Initialized data)
02	·
03	
04	
05	
06	
07	· .
08	
09	·
0A	
0B	
0C	
0D	
0E	
0F	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
1A	
1B	·
1C	
1D	
1E	
1F	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
2A	
2B	
2C	
2D	
2E	
2F	
30	
31	
32	

Address	Remark
33	Fixed data-1
34	(Initialized data)
35	
36	
37	
38	
39	
3A	
3B	
3C	
3D	
3E	
3F	
40	
41	
42	
43	
44	1
45	-
46	-
47	-
48	
49	-
4A	<u>.</u>
4B	
4C	-
4D	
4E	
4E 4F	-
50	-
51	
52	<u> </u>
53	-
54	-
	4
55	4
56	<u></u>
57	Eirad data 2
58	Fixed data-2
59	Fixed data-1
5A	4
5B	
5C	Fixed data-2
5D	Fixed data-1
5E	Fixed data-2
5F	Transfer de la constant de la consta
60	Fixed data-1
61	(Initialized data)
62	
63	4
64	_
65	_
66	<u> </u> -
67	Sup 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
68	Fixed data-2
69	Fixed data-1
6A	(Initialized data)

Address	Remark
6B	Fixed data-1
6C	(Initialized data)
6D	Fixed data-2
6E	Fixed data-1
6F	Fixed data-2 - Control type (%)
70	(Modified data, copy the data built in the same
71	model.)
72	Fixed data-1
73	(Initialized data)
74	
75	
76	
. 77	
78	
79	
7A	
7B	
7C	
7D	
7E	
7F	
80	·
81	
82	
83	
85	
86	
87	•
88	
89	
8A	
8B	
8C	
8D	
8E	
8F	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
9A	·
9B	
9C	
9D	
9E	
9F	
A0 A1	
A1 A2	
A2	

Address	Remark
A3	Fixed data-1
A4	(Initialized data)
A5	
A6	
A7	
- A8	·
A9	
AA	
AB	
AC	
AD	
AE	
AF B0	
B0 B1	
B1 B2	1
B3	
B4	
B5	
B6	
B7	
B8	
В9	
BA	
BB	•
BC	
BD	
BE	
BF	
C0	
C1	
C2	
C3	
	·
C5 C6	
C6	
C/	
C9	
CA	
CB	
CC	
CD	
CE	
CF	
D0	
D1	
D2	
D3	
D4	
D5	
D6	i
D7	
D8	l
D9	

Address		Remark	
DB	Fixed data-1		_
DC	(Initialized data)		
DD			
DE			
DF			
E0 to FF			

Table. 5-3-4

3-3. SYSTEM CONTROL SYSTEM ADJUSTMENT

1. Battery End Adjustment (VI-151 Board)

Set the battery end voltage.

If the voltage is incorrect, the life of the battery will shorten. The image at the battery end will also lose synchronization.

Mode	Camera recordings
Subject	Arbitrary
Measurement Point	Display data of page: 2, address: 5D
Measuring Instrument	Adjustment remote commander
Adjustment Page	D
Adjustment Address	30 to 34

Switch setting:

	AUTO FOCUSOFF	
2)	LCD display	

Connection:

1) Connect the regulated power supply and the digital voltmeter to the battery terminal as shown in Fig. 5-3-4.

Adjusting method:

- 1) Adjust the output voltage of the regulated power supply so that the digital voltmeter reading is 6.1 ± 0.1 Vdc.
- 2) Turn off the power supply.
- Turn on the HOLD switch of the adjustment remote commander.
- 4) Turn on the power supply.
- 5) Load a cassette, and set the recording mode.
- 6) Select page: 0, address: 01, and set data: 01.
- 7) Decrease the output voltage of the regulated power supply so that the digital voltmeter reading is 5.30 ± 0.01 Vdc.
- 8) Select page: 2, address: 5D, read the data, and this data is named Dref.
- Set the read-out data (Dref) to page: D. address: 30 and press the PAUSE button.
- Convert Dref to decimal notation, and obtain Dref. (Refer to Table 5-4-1 "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Calculate D₃₁', D₃₂', D₃₃', D₃₄' and D₄₉' using following equations (decimal calculation), convert it to a hexadecimal number, and input each adjustment address.

Address: $31 D_{31}' = Dref' + 7$

Address: 32 D₃₂' = Dref' + 25

Address: 33 D₃₃' = Dref' + 29

Address: 34 D₃₄' = Dref' + 37

Note: After setting each data, be sure to press the PAUSE button of the adjustment remote commander.

12) Select page: 0, address: 01, and set data: 00.

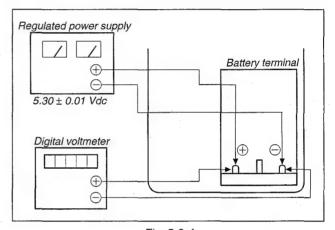


Fig. 5-3-4

3-4. SERVO AND RF SYSTEM ADJUSTMENT

Before performing the servo and RF system adjustments, check that the specified value of "27 MHz Master Oscillator Adjustment" of "CAMERA SYSTEM ADJUSTMENT" is satisfied.

Adjusting Procedure:

- 1. Cap FG duty adjustment
- 2. T-reel FG duty adjustment
- 3. PLL fo & LPF fo adjustment
- 4. Switching position adjustment
- 5. AGC center level adjustment
- APC & AEQ adjustment
- 7. PLL fo & LPF fo final adjustment

1. Cap FG Duty Adjustment (VI-151 Board)

Set the Cap FG signal duty cycle to 50% to establish an appropriate capstan servo. If deviated, the uneven rotation of capstan and noise can occur.

Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	16
Specified Value	00

Adjusting Method:

- 1) Close the cassette compartment without inserting a cassette.
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 01, set data: 1B, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 02, and check that the data changes starting from "1B" to "2B" to "00" in this order.
- 5) Select page: 3, address: 03, and check that the data is "00".

 Note: If the data of page: 3, address: 03 is "02", adjustment has errors or the mechanism deck is defective.
- 6) Select page: 0, address: 01, and set data: 00.

2.T Reel FG Duty Adjustment (VI-151 Board)

Adjust the take-up reel FG signal duty cycle to an appropriate value so that the correct T-reel FG signal is obtained.

so that the correct ricera c significant		
Measurement Point	Display data of page: 3, address: 03	
Measuring Instrument	Adjustment remote commander	
Adjustment Page	С	
Adjustment Address	17	
Specified Value	00	

Adjusting Method:

- 1) Close the cassette compartment without inserting a cassette.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 3, address: 01, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 3, address: 02, and check that the data changes starting from "1C" to "2C" to "00" in this order.
- 5) Select page: 3, address: 03, and check that the data is "00".

 Note: If the data of page: 3, address: 03 is "02", adjustment has errors or the mechanism deck is defective.
- 6) Select page: 0, address: 01, and set data: 00.

3. PLL fo & LPF fo Adjustment (VI-151 Board)

Mode	VTR stop
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C .
Adjustment Address	1F, 20, 22, 47
Specified Value	00

Adjusting Method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 02, and check that the data is changed to "00".
- 4) Select page: 3, address: 03, and check that the data is "00". Note: If the data of page: 3, address: 03 is other than "00", there are errors. (For the error contents, see the following table. For the bit values, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".
- 5) Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03	Elloi contents
bit $4 = 1$	PLL fo, even channel is defective
bit 5 = 1	PLL fo, odd channel is defective
bit 6 = 1	LPF fo is defective
bit $3 = 1$	PLL fo final adjustment is defective

4. Switching Position Adjustment (VI-151 Board)

Mode	VTR playback
Signal	SW/OL reference tape (XH2-3)
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	10, 11, 12, 13
Specified Value	00

Adjusting Method:

- Insert the SW/OL reference tape and enter the VTR STOP mode.
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 21, and check that the data is "02".
 Note: If the data of page: 3, address: 21 is "72", the tape top is being played. After playing the tape for 1 to 2 seconds, perform step 4 and higher.
- 4) Select page: 3, address: 01, set data: 0D, and press the PAUSE button of the adjustment remote commander.
- 5) Select page: 3, address: 02, and check the data is changed to "00".
- 6) Select page: 3, address: 03, and check that the data is "00".
 Note: If bit 0 of page: 3, address: 03 data is "1", the even channel is defective. If bit 1 is "1", the odd channel is defective. Contents of the defect is written into page: C, addresses: 10 and 12. See the following table. (For the bit value, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".)
- 7) Select page: 0, address: 01, and set data: 00.

When the even channel is defective

Data of page: C, address: 10	Contents of defect	
EE	Writing into EEPROM (IC2404) is defective	
E8	Adjustment data is out of range	
E7	No data is returned from IC1900 (TRX)	

When the odd channel is defective

Data of page: C, address: 12	Contents of defect
EE	Writing into EEPROM (IC2404) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC1900 (TRX)

5. AGC Center Level Adjustment (VI-151 Board)

Mode	Camera record and playback
Subject	Arbitrary
Measurement Point	Pin @ of CN2904 (RF MON) (Note 1)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	1E
Specified Value	The display data of page: 3, address: 03 is "00"

Note 2: Connect a 75 Ω resistor between Pin @ and Pin $\mathfrak B$ (GND) of CN2904.

75 Ω resistor (Parts code: 1-247-804-11)

Adjusting Method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Record the camera signal for a minute.
- 3) Playback the recorded segment.
- 4) Select page: 3, address: 33, and set data: 08.
- 5) Confirm that the playback RF signal is stable.
- Select page: 3, address: 01, set data: 23, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 02, and check that the data is "00".
- Select page: 3, address: 03, and check that the data is "00".
 Note: If data of page: 3, address: 03 is other than "00", adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
- 9) Select page: 3, address: 33, and set data: 00.
- 10) Select page: 0, address: 01, and set data: 00.

Data of page: 3, address: 03	Remedial measures
20	Perform re-adjustment. (Note 2)
30	The machine is defective
40	Perform re-adjustment. (Note 2)
50	The machine is defective

Note 2: If this data is displayed twice successively, the machine is defective.

6. APC & AEQ Adjustment (VI-151 Board)

Camera record and playback
Arbitrary
Pin @ of CN2904 (RF MON) (Note 1)
Oscilloscope
С
18, 19, 1B, 1C, 21, 73
The display data of page: 3, address: 03 is "00"

Note 1: Connect a 75 Ω resistor between Pin @ and Pin @ (GND) of CN2904.

75 Ω resistor (Parts code: 1-247-804-11)

Note 2: The "5. AGC Center Level Adjustment" must have already been completed before starting this adjustment.

Adjusting Method:

- 1) Select page: 0, address: 01, and set data: 01.
- Record the camera signal for two minutes.
- 3) Playback the recorded segment.
- 4) Select page: 3, address: 33, and set data: 08.
- 5) Check that the playback RF signal is stable.
- 6) Select page: 3, address: 01, set data: 07, and press the PAUSE button of the adjustment remote commander.
- 7) Check that the data of page: 3, address: 02 changes from "07" to "00" in about 50 seconds after pressing the PAUSE button.
- 8) Select page: 3, address: 03, and check that the data is "00".
 Note: If data of page: 3, address: 03 is other than "00", adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
- 9) Select page: 3, address: 33, and set data: 00.
- 10) Select page: 0, address: 01, and set data: 00.

Data of page: 3, address: 03	Remedial measures
20	Perform re-adjustment. (Note 3)
30	The machine is defective
50	Perform re-adjustment. (Note 3)
60	The machine is defective
80	The machine is defective .

Note 3: If this data is displayed twice successively, the machine is defective.

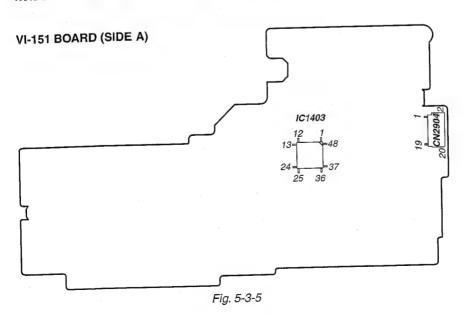
7. PLL fo & LPF fo Final Adjustment (VI-151 Board)

Mode	VTR playback
Signal	Arbitrary
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	1F, 20, 22, 47
Specified Value	00

Adjusting Method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 02, and check that the data changes to "00"
- 4) Select page: 3, address: 03, and check that the data is "00". Note: If the data of page: 3, address: 03 is other than "00", there are errors. (For the error contents, see the following table. For the bit values, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".
- 5) Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03	Life contents
bit 4 = 1	PLL fo, even channel is defective
bit 5 = 1	PLL fo, odd channel is defective
bit 6 = 1	LPF fo is defective
bit 3 = 1	PLL fo final adjustment is defective



3-5. VIDEO SYSTEM ADJUSTMENTS

Before perform the video system adjustments, check that the specified value of "27 MHz Origin Oscillation Adjustment" of "CAMERA SYSTEM ADJUSTMENT" is satisfied.

3-5-1. Base Band Block Adjustments

1. Chroma BPF fo Adjustment (VI-151 Board)

Set the center frequency of IC1402 chroma band-pass filter.

1 2	1
Mode	VTR stop
Signal	No signal
Measurement Point	CH1: Chroma signal terminal of S VIDEO jack (75 Ω terminated) CH2: Y signal terminal of S VIDEO jack (75 Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	2B
Specified Value	A = 100 mVp-p or less B = 200 mVp-p or more

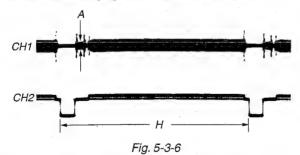
Switch setting:

DISPLAY (Menu display)	V-OUT/LCD
DISPLAY (CK-80 board)	ON

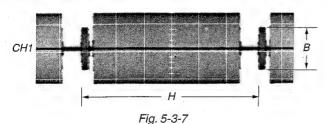
Adjusting method:

- Check that the burst signal (B) is output to the chroma signal terminal of S VIDEO jack.
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 04, and press the PAUSE button of the adjustment remote commander.
- Select page: C, address: 2B, and change the data for minimum amplitude of the burst signal level (A).
 (The data of address: 2B, should be "00" to "07".)
- 5) Press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 6) Check that the burst signal level (B) is satisfied the specified value.
- 7) Select page: 0, address: 01, and set data: 00.

When the data of page: 3, address: 0C, is 04:



When the data of page: 3, address: 0C, is 00.



2. S VIDEO OUT Y Level Adjustment (VI-151 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Y signal terminal of S VIDEO jack (75 Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	25
Specified Value	$A = 1000 \pm 14 \text{ mV}$

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: C, address: 25, change the data and set the Y signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 35. and set the data that is noted down at step 2).
- 8) Select page: 0, address: 01, and set data: 00.

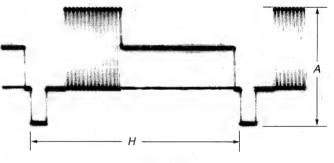


Fig. 5-3-8

3. S VIDEO OUT Chroma Level Adjustment (VI-151 Board)

(VI-151 Board)			
Mode	Camera		
Subject	Arbitrary		
Measurement Point	Chroma signal terminal of S VIDEO jack (75 Ω terminated) External trigger: Y signal terminal of S VIDEO jack		
Measuring Instrument	Oscilloscope		
Adjustment Page	С		
Adjustment Address	26, 27		
Specified Value	$ \begin{array}{lll} \text{Cr level:} & A = 714 \pm 14 \text{ mV (NTSC)} \\ & A = 700 \pm 14 \text{ mV (PAL)} \\ \text{Cb level:} & B = 714 \pm 14 \text{ mV (NTSC)} \\ & B = 700 \pm 14 \text{ mV (PAL)} \\ \text{Burst level:} & C = 286 \pm 6 \text{ mV (NTSC)} \\ & C = 300 \pm 6 \text{ mV (PAL)} \\ \end{array} $		

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: C, address: 26, change the data and set the Cr signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: C, address: 27, change the data and set the Cb signal level (B) to the specified value.
- 7) Press the PAUSE button of the adjustment remote commander.
- 8) Check that the burst signal level (C) is satisfied the specified value.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 2, address: 35. and set the data that is noted down at step 2).
- 11) Select page: 0, address: 01, and set data: 00.

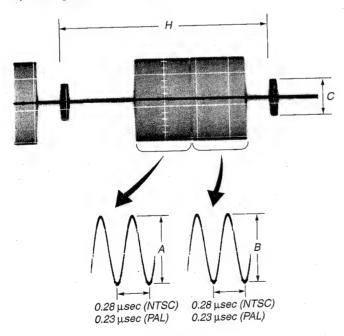


Fig. 5-3-9

4. AV OUTY, Chroma Level Check (VI-151 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Video terminal of AUDIO/VIDEO jack (75 Ω terminated)
Measuring Instrument	Oscilloscope
Specified Value	Sync level: A = 286 ± 18 mV (NTSC) A = 300 ± 18 mV (PAL) Burst level: B = 286 ± 18 mV (NTSC) B = 300 ± 18 mV (PAL)

Adjusting method:

- 1) Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 2) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjusting remote commander.
- 3) Check that the sync signal level (A) satisfies the specified value.
- 4) Check that the burst signal level (B) satisfies the specified value.
- 5) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 6) Select page: 2, address: 35. and set the data that is noted down at step 1).

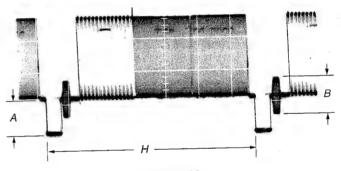


Fig. 5-3-10

5. PLL Adjustment (VC-208 Board)

Set the VCO center level of the video input circuit (IC1200).

Mode	VTR stop
Signal	Color bar (Video terminal of AUDIO/ VIDEO jack input)
Measurement Point	Display data of page: 3, address: 04
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	AA
Specified Value	08 or 09 (Note 1) 08 or 09 or 0A (Note 2)

Note 1: When the data of page: C, address: AA is "00" to "FE".

Note 2: When the data of page: C, address: AA is "FF".

Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 80, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: C, address: AA, and set data: 00, and press the PAUSE button.
- 4) Select page: 3, address: 04, and check. If the data is "08" or "09", proceed to step 7).
- 5) Select page: C, address: AA, add "10" (hexadecimal) to the data (Note 3) and press the PAUSE button.
- Note 3: If the data of page: C, address: AA is "F0", change the data to "FF" and press the PAUSE button.
- 6) Select page: 3, address: 04, and check the data satisfies the specified value. If not repeat steps 5) to 6).
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

3-5-2. BIST Check

1. Playback System Check

1-1. Preparation for Playback

- Set the POWER switch to VTR (or PLAYER) position.
- Connect the adjusting remote commander and set the HOLD switch to ON (SERVICE) position.
- Playback the BIST check tape. (XH5-6 (NTSC), XH5-6P 3) (PAL))

Note: Perform the following checks in the playback mode.

1-2. IC1814 (TRF) BIST (PB) Check

- Select page: 3, address: 12, set data: 04, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE 2) button.
- Select page: 3, address: 13, set data: 02, and press the PAUSE button.
- When the playback system of IC1814 (TRF) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

MISCH	Juei					
Address			Da	ita		
16	63	C5	75	D3	59	FF
10	84	55	07	D6	01	D0
1 1/	04	55	-			

PAL model

Address		Data	
16	86	33	90
17	35	AA	В6

1-3. IC1601 (TFD) BIST (PB) Check

- Select page: 3, address: 40, set data: 0F, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE 2) button.
- When all playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model			
Address	Data		
41	26		
42	A1		

PAL model		
Address	Data	
41	69	
42	73	

- Select page: 3, address: 40, set data: 03, and press the PAUSE
- Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- When the video playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

1	NTSC model	
	Address	Data
	41	7C
	42	01

PAL model		
Address Data		
41	A6	
42	E1	

- Select page: 3, address: 40, set data: 05, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- When the audio playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model		
Address	Data	
41	88	
42	A9	

PAL model		
Address Data		
41	43	
42	C8	

- 10) Select page: 3, address: 40, set data: 09, and press the PAUSE button.
- 11) Select page: 3, address: 40, set data: 00, and press the PAUSE
- 12) When the subcode playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

İ	NTSC model	
I	Address	Data
	41	72
	42	CD

PAL model	
Address	Data
. 41	76
42	A9

1-4. IC1600 (SFD) BIST (PB) Check

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: C, address: AC, set data: 21, and press the PAUSE button.
- Select page: C, address: AD, set data: 01, and press the PAUSE button.
- Select page: 3, address: 11, set data: 04, and press the PAUSE button.
- 5) Select page: 3, address: 12, set data: 08, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 03, and press the PAUSE button
- 8) When the playback system from IC1600 (SFD) to IC2002 (ADC&DAC) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model		
	Address	Data
	14	41
	15	Q 1

PAL model	
Address	Data
14	2D
15	7C

9) When the playback system from IC1600 (SFD) to IC1602 (LIP) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model			
Address	Data		
16	1E	FO	
17	B4	31	

PAL model		
Address	Data	
16	1C	
17	A6	

10) When the playback system from IC1600 (SFD) to IC1601 (TDF) is normal, the display data (combination data) of page:3, address: 18 and 19 agrees with any combination as shown below.

NTSC model

Address	Da	ita
18	72	16
19	F8	5C

PAL	model

Address	Data
18	A7
19	CC

11) When the playback system from IC1600 (SFD) to IC1501 (VFD) is normal, the display data (combination data) of page: 3, address: 1A and 1B agrees with any combination as shown below.

NTSC model

Address Da		Data
	1A	12
	1B	43

PAL	model
-----	-------

Address	Data
1A	90
1B	CE

- 12) Select page: C, address: AC, set data: 20, and press the PAUSE button
- Select page: C, address: AD, set data: 00, and press the PAUSE button.
- 14) Select page: 0, address: 01, and set data: 00.

1-5. IC1501 (VFD) BIST (PB) Check

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: C, address: 60, set data: 06, and press the PAUSE button.

• VBUS/EX BIST (PB) Check

- Select page: 3, address: 10, set data: 00, and press the PAUSE button.
- 4) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 5) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 7) When the playback system from IC1600 (SFD) to IC1501 (VFD) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model		
Address	Data	
14	12	
15	43	

PAL model		
Address	Data	
14	90	
15	CE	

8) When the playback system from IC1501 (VFD) to IC756 (HONEY) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model		
Address	Data	
16	FB	
17	F4	

PAL model		
Address	Data	
16	54	
17	ED	

• UPY Y BIST (PB) Check

- Select page: 3, address: 10, set data: 88, and press the PAUSE button.
- Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 12) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 13) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model		
Address	Data	
16	9A	
17	13	

PAL model		
Address	Data	
16	03	
17	C9	

• UPY Cr BIST (PB) Check

- 14) Select page: 3, address: 10, set data: 89, and press the PAUSE button.
- 15) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 16) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 17) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 18) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

MICO MOGO.		
Address	Data	
16	1C	
17	60	

PAL model		
	Address	Data
	16	14
	17	A7

• UPY Cb BIST (PB) Check

- 19) Select page: 3, address: 10, set data: 8A, and press the PAUSE button.
- 20) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 21) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 22) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 23) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

1	Address	Data
	16	92
	17	5A

PA	L	m	o	d	e

Address	Data
16	В8
17	67

Preparation of ENC BIST (PB) Check

24) Select page: C, address: 51, set data: 0F, and press the PAUSE

• ENC Ya BIST (PB) Check

- 25) Select page: 3, address: 10, set data: 8B, and press the PAUSE button.
- 26) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 27) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 28) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 29) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

Address	Data
16	3C
17	D2

DAI model

I AL MOGOL		
Address	Data	
16	69	
17	21	

• ENC Yb BIST (PB) Check

- 30) Select page: 3, address: 10, set data: 8C, and press the PAUSE
- 31) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 32) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 33) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 34) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NITCC model

NISC model		
Address	Data	
16	83	
17	9E	

PAL model		
Address	Data	
16	CC	
17	ED	

• ENC Ca BIST (PB) Check

- 35) Select page: 3, address: 10, set data: 8D, and press the PAUSE
- 36) Select page: 3, address: 12, set data: 10, and press the PAUSE
- 37) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 38) Select page: 3, address: 13, set data: 04, and press the PAUSE
- 39) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model				
Address	D	ata		
16	FE	22		
17	68	CA		

			-
PAL	m	20	de
FAL	. 11	ıu	ue

Address	Data	
16	70	43
17	D5	E4

• ENC Cb BIST (PB) Check

- 40) Select page: 3, address: 10, set data: 8E, and press the PAUSE
- 41) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 42) Select page: 3, address: 12, set data: 00, and press the PAUSE
- 43) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 44) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

N 130 Illouel			
Address	Da	ıta	
16	B2	DE	
17	E7	EE	

PAL	model

Address Data		
16	ED	-9A
17	СВ	1E

- 45) Select page: C, address: 51, set data: 03, and press the PAUSE
- 46) Select page: C, address: 60, set data: 0E, and press the PAUSE button.
- 47) Select page: 0, address: 01, and set data: 00.

2. Recording System Check

2-1. Preparations for recording

- 1) Playback the BIST check tape. (XH5-6(NTSC), XH5-6P(PAL))
- Select page: 3, address: 10, set data: C0, and press the PAUSE button.
- 3) Select page: 3, address: 11, set data: 07, and press the PAUSE button.
- Enter the stop mode.
- While keep the HOLD switch of the adjusting remote commander at ON (SERVICE) position, eject the BIST check tape and insert a tape for recording in place of the tape.
- Enter the camera recording mode.

Note: Perform the following checks in the camera recording mode.

2-2. IC1501 (VFD) BIST (REC) Check

- Select page: 3, address: 12, set data: 10, and press the PAUSE
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 3) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- When the recording system from IC1501 (VFD) to IC1600 (SFD) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below

	NTSC n	nodel	
-	Address	Data	

PAL model		
Address	Data	
14	34	
15	8A	

2-3. IC1600 (SFD) BIST (REC) Check

- Select page: 0, address: 01, and set data: 01.
- Select page: C, address: AC, set data: 21, and press the PAUSE 2) button.
- Select page: C, address: AD, set data: 01, and press the PAUSE button.
- Select page: 3, address: 11, set data: 04, and press the PAUSE button.
- Select page: 3, address: 12, set data: 08, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 03, and press the PAUSE button.
- When the recording system from IC1600 (SFD) to IC1602 (LIP) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model

Address	Data	
16	00	BC
17	15	CE

PAL model Address Data 2D A2 16 17 7B F5

When the recording system from IC1600 (SFD) to IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 18 and 19 agrees with any combination as shown helow

NTSC model

Address	Da	ita
18	F7	4F
19	F6	69

PAL model

	Address	Da	ıta
I	18	6C	23
	19	C7	76

10) When the recording system from IC1501 (VFD) to IC1600 (SFD) is normal, the display data (combination data) of page: 3, address: 1A and 1B agrees with any combination as shown below.

NISC model		
Address	Data	
1A	D5	
1B	0B	

PAL model		
Address	Data	
1A	34	
1B	8A	

- 11) Select page: C, address: AC, set data: 20, and press the PAUSE button.
- 12) Select page: C, address: AD, set data: 00, and press the PAUSE button.
- 13) Select page: 0, address: 01, and set data: 00.

2-4. IC1601 (TFD) BIST (REC) Check

- Select page: 3, address: 40, set data: 0F, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE 2)
- When all recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model

Address	Da	ıta
41	C2	A7
42	42	DD

PAL mode

Address	Da	ıta
41	55	1A
42	В5	04

- Select page: 3, address: 40, set data: 03, and press the PAUSE button
- 5) Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- When the video recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NISC Isloues		
Address	Data	
41	BB	
42	4E	

PAI model

TAL MOUCE		
Address	Data	
41	DC	
42	ED	

- Select page: 3, address: 40, set data: 05, and press the PAUSE button
- Select page: 3, address: 40, set data: 00, and press the PAUSE
- When the audio recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NISC model		
Address	Data	
41	D7	
42	23	

DAI model

FAL IIIOGEI		
Address	Data	
41	E4	
42	38	

- 10) Select page: 3, address: 40, set data: 09, and press the PAUSE button.
- 11) Select page: 3, address: 40, set data: 00, and press the PAUSE
- 12) When the subcode recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model

NISC INCOME		
Address	Data	
41	D9	
42	3C	

PAI model

I AL IIIO	uci
Address	Data
41	47
42	27

- 13) Select page: 3, address: 40, set data: 01, and press the PAUSE button.
- 14) Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- 15) When the recording system from IC1601 (TFD) to IC1900 (TRX) is normal, the display data (combination data) of page: 3, address: 43 and 44 agrees with any combination as shown below.

NTSC model

MISCH	louei	
Address	Da	ıta
43	18	C8
44	F0	FB

PAL model

Address	Da	ıta
43	F6	A2
44	2A	E3

2-5. IC1900 (TRX) BIST (REC) Check

- 1) Select page: 3, address: 12, set data: 04, and press the PAUSE button
- 2) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 3) Select page: 3, address: 13, set data: 02, and press the PAUSE button.
- 4) When all recording system of IC1900 (TRX) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Da	ıta
14	96	BC
15	D1	0E

PAL mode

Address	Da	ita
14	27	B5
15	8D	61

3-6. AUDIO SYSTEM ADJUSTMENTS

[Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-11.

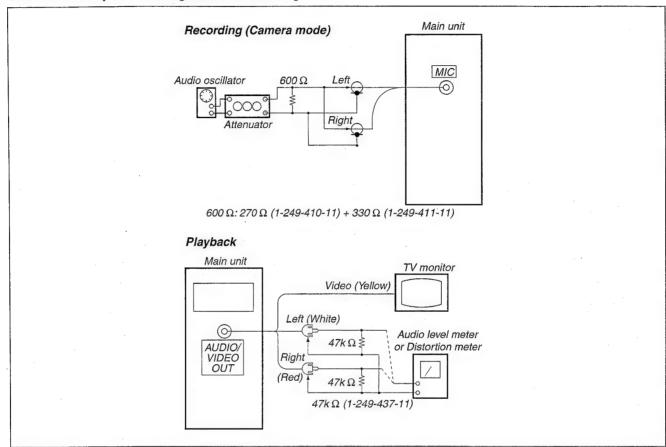


Fig. 5-3-11

1. Playback Level Check

Mode	VTR playback
Signal	Alignment tape: For audio operation check (XH5-3 (NTSC)) (XH5-3P (PAL))
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter and frequency counter
Specified Value	32 kHz mode: 1 kHz , $+3.0 \pm 2.0 \text{ dBs}$ 48 kHz mode: 1 kHz , $+3.0 \pm 2.0 \text{ dBs}$ 44.1 kHz mode: The 7.35 kHz signal level during EMP OFF is $+2.0 \pm 2.0 \text{ dBs}$. The 7.35 kHz signal level during EMP ON is $-6 \pm 2 \text{ dB}$ from the signal level during EMP OFF.

Checking Method:

1) Check that the playback signal level is the specified value.

2. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -66 dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 3.0 \text{ dBs}$

Checking Method:

- 1) Input the 400 Hz, -66 dBs signal in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the 400 Hz signal level is the specified value.

3. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -66 dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.4 % (200 Hz to 6 kHz BPF ON)

Checking Method:

- 1) Input the 400 Hz, -66 dBs signal in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the distortion is the specified value.

4. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the MIC jack
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below –45 dBs (IHF-A filter ON, 20 kHz LPF ON)

Checking Method:

- 1) Insert a shorting plug in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the noise level is the specified value.

5. Overall Separation Check

r		
1	Mode	Camera recording and playback
	Signal	400 Hz, -66 dBs signal: MIC jack <right> [left] (Connect the MIC jack <left> [right] to GND)</left></right>
	Measurement Point	Audio <left> [right] terminal of AUDIO VIDEO jack</left>
	Measuring Instrument	Audio level meter
	Specified Value	Below -40 dBs (IHF-A filter ON)

<>: Left channel check

[]: Right channel check

Checking Method:

- 1) Input the 400 Hz, -66 dBs signal in the <right> [left] terminal of the MIC jack only.
- 2) Record in the camera mode.
-) Playback the recorded section.
- Check that the signal level of the audio <left> [right] terminal is the specified value.

5-4. SERVICE MODE

4-1. ADJUSTMENT REMOTE COMMANDER

The adjustment remote commander is used for changing the calculation coefficient in signal processing, EVR data, etc. The adjustment remote commander performs bi-directional communication with the unit using the remote commander signal line (LANC). The resultant data of this bi-directional communication is written in the non-volatile memory.

1. Using the Adjustment Remote Commander

- Connect the adjustment remote commander to the LANC terminal.
- Set the HOLD switch of the adjustment remote commander to "HOLD" (SERVICE position). If it has been properly connected, the LCD on the adjustment remote commander will display as shown in Fig. 5-4-1.



Fig. 5-4-1

- 3) Operate the adjustment remote commander as follows.
 - Changing the page
 The page increases when the EDIT SEARCH+ button is
 pressed, and decreases when the EDIT SEARCH- button is
 pressed. There are altogether 16 pages, from 0 to F.

Hexadecimal notation	0	1	2	3	4	5	6	7	8	9	A	В	С	D	E	F
LCD Display		-1	2	3	4	5	5	7	8	9	Я	Ь	٥	d	Ε	F
Decimal notation conversion value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

- · Changing the address
 - The address increases when the FF (►►) button is pressed, and decreases when the REW (►►) button is pressed. There are altogether 256 addresses, from 00 to FF.
- Changing the data (Data setting)
 The data increases when the PLAY (►) button is pressed, and decreases when the STOP (■) button is pressed. There are altogether 256 data, from 00 to FF.
- Writing the adjustment data
 The PAUSE button must be pressed to write the adjustment data (B, C, D, F page) in the nonvolatile memory. (The new adjusting data will not be recorded in the nonvolatile memory if this step is not performed.)
- 4) After completing all adjustments, turn off the main power supply (8.4V) once.

2. Precautions Upon Using the Adjustment Remote Commander

Mishandling of the adjustment remote commander may erase the correct adjustment data at times. To prevent this, it is recommended that all adjustment data be noted down before beginning adjustments and new adjustment data after each adjustment.

4-2. DATA PROCESS

The calculation of the DDS display and the adjustment remote commander display data (hexadecimal notation) are required for obtaining the adjustment data of some adjustment items. In this case, after converting the hexadecimal notation to decimal notation, calculate and convert the result to hexadecimal notation, and use it as the adjustment data. Indicates the hexadecimal-decimal conversion table.

xadecimal-deci	mai C	onver	51011 1	able				1						2	(2)		
Lower digit of hexadecimal	0	1	2	3	4	5	6	7	8	9	Α	В	С	D	E	F	
Upper digit of hexadecimal											(日)	(P)	(_)	(占)	(E)	(/	
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3	
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	4	
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	6	
4	64	65	66	67	68	69	70	71	72	73	74	77	76	77	78	7	
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	9	
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	1	
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	1:	
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	1	
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	1.	
A (月)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	1	
В (Ь)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	19	
C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	2	
D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	2	
E (E)	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	2:	
F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	25	

Note: The characters shown in the parenthesis () shown the display on the adjustment remote commander.

(Example) If the DDS display or the adjustment remote commander shows BD (bd);

Because the upper digit of the adjustment number is B (b), and the lower digit is D (d), the meeting point "189" of ① and ② in the above table is the corresponding decimal number.

Table. 5-4-1

4-3. SERVICE MODE

1. Setting the Test Mode

Page D	Address 10	

Data	Function			
00	Normal			
01 Forced camera power ON				
02 Forced VTR power ON				
03 Forced camera + VTR power ON				
05	Forced memory power ON			

- Before setting the data, select page: 0, address: 01, and set data:
- For page D, the data set is recorded in the non-volatile memory by pressing the PAUSE button of the adjustment remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off (8.4Vdc).
- After completing adjustments/repairs, be sure to return the data
 of this address to 00, and press the PAUSE button of the adjustment
 remote commander.

Select page: 0, address: 01, and set data: 00.

2. Emergence Memory Address

V		
Page C	Address 38 to 43	

Address	Contents
38	EMG code when first error occurs
3A	Upper: MSW code when shift starts when first error occurs Lower: MSW code when first error occurs
3B	Lower: MSW code to be moved when first error occurs
3C	EMG code when second error occurs
3E	Upper: MSW code when shift starts when second error occurs Lower: MSW code when second error occurs
3F	Lower: MSW code to be moved when second error occurs
40	EMG code when last error occurs
42	Upper: MSW code when shift starts when last error occurs Lower: MSW code when last error occurs
43	Lower: MSW code to be moved when last error occurs

When no error occurs in this unit, data "00" is written in the above addresses (38 to 43). when first error occurs in the unit, the data corresponding to the error is written in the first emergency address (38 to 3B). In the same way, when the second error occurs, the data corresponding to the error is written in the second emergency address (3C to 3F). Finally, when the last error occurs, the data corresponding to the error is written in the last emergency address (40 to 43).

Note: After completing adjustments, be sure to initialize the data of addresses 38 to 43 to "00".

Initializing method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: C, address: 38, set data: 00, and press the PAUSE button.
- Select address: 39 to 43 and set data: "00" into them in same way as in address: 38.
- 4) Select page: 0, address: 01, and set data: 00.

2-1. EMG Code (Emergency Code)

Codes corresponding to the errors which occur are written in addresses 38, 3C and 40. The type of error indicated by the code are shown in the following table.

Code	Emergency Type			
00	No error			
10	Loading motor emergency during loading			
11 Loading motor emergency during unloading				
22	T reel emergency during normal rotation			
23	S reel emergency during normal rotation			
24	T reel emergency (Short circuit between S reel terminal and T reel terminal)			
30	FG emergency at the start up of the capstan			
40	FG emergency at the start up of the drum			
42	FG emergency during normal rotation of the drum			

2-2. MSW Code

MSW when errors occur:

Information on MSW (mode SW) when errors occur

MSW when movement starts:

Information on MSW when movements starts when the mechanism position is moved (When the L motor is moved)

MSW of target of movement:

Information on target MSW of movement when the mechanism position is moved

Mechanical Position

\leftarrow UNLOAD														LOAD -	→
EJECT BL	ULE	BL	SR	BL	HL	BL	LE	BL	STOP	BL	RP	BL	REW	BL	
			_	-	_		0	_	0		<u> </u>	_	_	-	→ A (LSB)
	0	<u> </u>	0		Ó	-	. —		0	i 🗻		<u> </u>			⊸ B
	<u></u>		_		0		_	<u> </u>		-	0	¦ 🗝	0		- C
0 1 -	0	 				; ;	_	¦ —	; -	-		-	0		├ - D (MSB)
1 11 11	i II	II,	II.	11	11	11 1	II	11	l II	111	11	II	H	П	1
7 F	U U	i mij	D	T	9	m	П	п.	C	π	<u></u>	ן דד	ω	TI	1
		1 1							1		1				
			LS CI	hassis	movem	ent se	ection				4			-	_;
1 1					•		-				1	Pincl	roller pre	essing	
											 		4		1
Lock released													Tensio	n regulator	
Cassette com	partment													•	

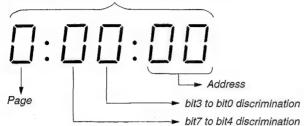
Cassette compartment	

Position	Code	Contents
EJECT	7	Position at which the cassette component lock is released, at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	F	BLANK code, at the boundary between codes.
USE	5	EJECT completion position. When the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SR	D	Code during loading.
HL	9	Guide loading are performed here.
LE	Е	Current limiter turned off.
STOP	С	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
RP	В	PB, REC, CUE, PAUSE positions. When pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
REW	3	REW position. The tension regulator is half on. This position is not used except for the REW mode.

3. Bit Value Discrimination

Bit values must be discriminated using the display data of the adjustment remote commander for following items. Use the table below to discriminate if the bit value is "1" or "0".

Display on the adjustment remote commander



	Display on the		Bit v	alues	
	adjustment remote commander	bit3 or bit7	bit2 or bit6	bit1 or bit5	bit0 or bit4
	0	0	0	0	0
	1	0	0	0	1
	2	0	0	1	0
	3	0	0	1	· 1
	4	0	1	0	0
	5	0	1	0	1
	6	0	1	1	0
	7	0	1	1	1
A	8	1	0	0	0
	9	1	0	. 0	1
	A (FI)	1	0	1	0
	В (Ь)	1	0	1	1
	C(<u>c</u>)	1	1	0	0
	D(9)	1	1	0	1
B	E(<i>E</i>)	1	1	1	0
	F(F)	1	1	1	1

Example: If "8E" is displayed on the adjustment remote commander, the bit values for bit7 to bit4 are shown in the (a) column, and the bit values for bit3 to bit0 are shown in the (b) column.

4. Switch Check (1)

Page 2	Address 43
--------	------------

Bit	Function	When bit value=1	When bit value=0
0	VTR MODE SW	OFF	ON
1	CAM MODE SW	OFF	ON
2	START/STOP SW	OFF	ON
3	EJECT SW	OFF	ON
4	CC DOWN SW	OFF	ON
5	PHOTO FREEZE SW	OFF	ON
6			
7	PHOTO REC SW	OFF	ON

Using method:

- 1) Select page: 2, address: 43.
- 2) By discriminating the bit value of display data, the state of the switches can be discriminated.

5. Switch Check (2)

Page 2	Address 60 to 67
1 age 2	

Using method:

Select page: 2, address: 60 to 67.
 By discriminating the display data, the pressed key can be discriminated.

	Data									
Address	00 (00 to 0A)	19 (0B to 24)	32 (25 to 44)	59 (45 to 6E)	85 (4F to 9F)	B8 (A0 to D4)	EE (D5 to FF)			
60 (KEY AD0) (IC2204 ⁽³⁾)	STOP (FK4880 block) (S800)	REW (FK4880 block) (S802)	PLAY (FK4880 block) (S804)	REC (FK4880 block) (S807, 808)			No key input			
61 (KEY AD1) (IC2204 94)	PAUSE (FK4880 block) (S801)	FF (FK4880 block) (S803)	PHOTO REC (FK4880 block) (S811)	SELF TIMER (FK4880 block) (S805)	TC RESET (FK4880 block) (S809)		No key input			
62 (KEY AD2) (IC2204 95)	FADER (ED-48 block) (S7000)	BACK LIGHT (ED-48 board) (S7001)		EDIT SEARCH – (ED-48 board) (S7002)	EDIT SEARCH + (ED-48 board) (S7003)	-	No key input			
63 (KEY AD3) (IC2204 96)	EXPOSURE (FP-18, S103)	PROGRAM AE (FP-18, S102)	WHITE BALANCE (FP-18,S101)	SHUTTER (FP-18, S100)	AUTO LOCK HOLD (CK-80 board) (S7214)	AUTO LOCK AUTO (CK-80 board) (S7214)	AUTO LOCK MANUAL (CK-80 board) (S7214)			
64 (KEY AD4) (IC2204 ⑨)	TITLE (CK-80 board) (S7202)	DIGITAL EFFECT (CK-80 board) (S7205)	PICTURE EFFECT (CK-80 board) (S7208)	EXECUTE (CK-80 board) (S7219)	ZEBRA 100% (CK-80 board) (S7210)	ZEBRA 70% (CK-80 board) (S7210)	ZEBRA OFF (CK-80 board) (S7210)			
65 (KEY AD5) (IC2204 ®)	END SEARCH (CK-80 board) (S7201)	DISPLAY (CK-80 board) (S7204)	MENU (CK-80 board) (S7207)	ND FILTER (FP-21, S702)	FOCUS INFINITY (FP-21, S700)	(FP-21, S700,701)				
66 (KEY AD6) (IC2204 (99)	MEMORY + (CK-80 board) (S7200)	MEMORY – (CK-80 board) (S7203)	MEMORY INDEX (CK-80 board) (S7206)	MEMORY DELETE (CK-80 board) (S7209)	MEMORY PLAY (CK-80 board) (S7209)	PANEL REVERSE (FP-16, S001)	PANEL NORMAL (FP-16, S001)			
67 (KEY AD7) (IC2204 @)	PANEL BRIGHT + (FP-19, S503)	PANEL BRIGHT – (FP-19, S502)	VOLUME + (FP-19, S501)	VOLUME – (FP-19, S500)	DATA CODE (CK-80 board) (S7212)	PANEL CLOSE (FP-16, S002)	PANEL OPEN (FP-16, S001)			

6. Record of Use Check

0.1100014 -	
Page 2	Address A2 to AA

Address	Function		Remarks
A2		Minutes	
A3	Drum rotation counted time (BCD code)	Hour (L)	10th place digit and 1st place digit of counted time (decimal digit)
A4		Hour (H)	1000th place digit and 100th place digit of counted time (decimal digit)
A5		Year	
A6	User initial power on date (BCD code)	Month	After setting the clock, set the date of power on next.
A7		Day	
A8	T' 1 1 diameter dete	Year	
A9	Final condensation occurrence date	Month	
AA	(BCD code)	Day	

Using method:

1) The record of use data is displayed at page: 2, addresses: A2 to AA.

Note: This data will be erased when the coin lithium battery (CK-80 board BT7200) is removed (reset).

SECTION 6 REPAIR PARTS LIST

6-1. EXPLODED VIEWS

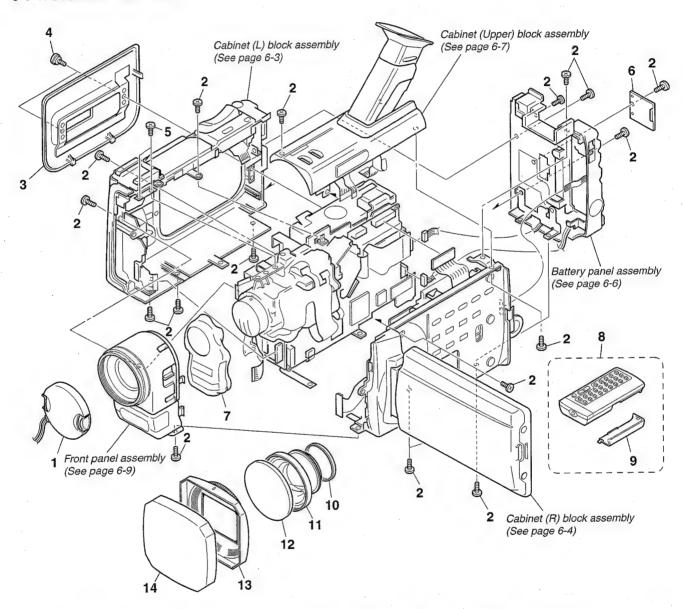
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation CND: Canadian model

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

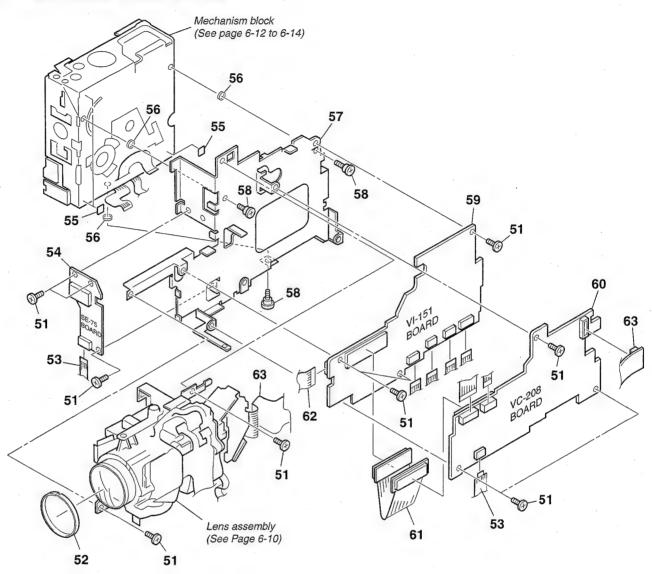
Les composants identifiés par une marque ∆ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-1. OVERALL SECTION



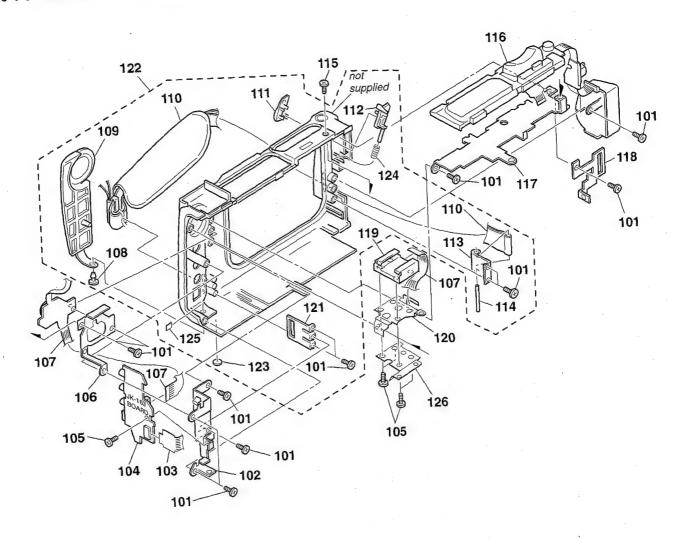
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1 2 3 4 5	X-3948-999-1 3-989-746-01	CAP ASSY, LENS SCREW (M2), LOCK ACE, P2 LID ASSY, CASSETTE SCREW (M2 STEP) SCREW (M2), LOCK ACE, P2		8 9 10 11 12	3-053-056-01 3-053-549-01	REMOTE COMMANDER (RMT-811) LID, BATTERY CASE CAP, WIDE CONVERSION (58.5 ∅) CONVERSION, WIDE CAP, WIDE CONVERSION (85 ∅)	
6 7	3-051-885-01 3-052-033-01	COVER, CPC SHEET, ACOUSTIC ISOLATION		13 14	3-052-849-01 3-053-551-01	LID, HOOD CAP, HOOD	

6-1-2. MECHANISM FRAME SECTION



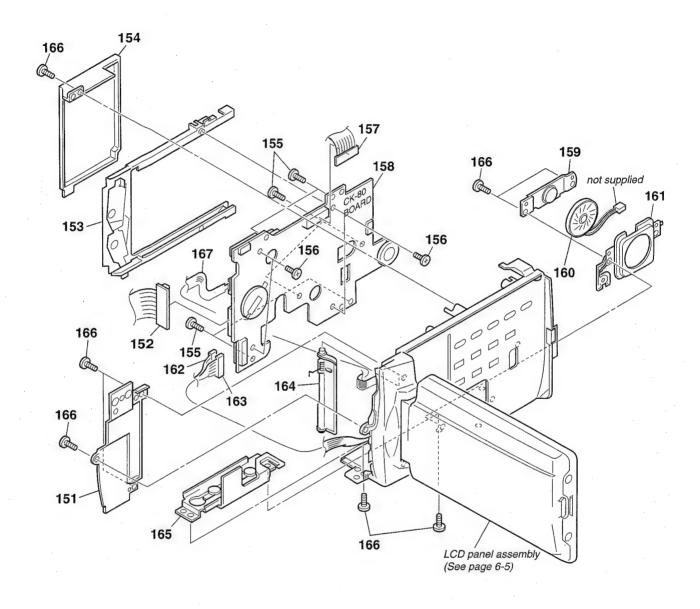
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51 * 52 53 54 55	3-052-621-01 1-670-982-11 A-7073-675-A	SCREW (M2), LOCK ACE, P2 CUSHION, LENS FP-14 FLEXIBLE BOARD SE-75 BOARD, COMPLETE SHEET, VIBRATION PROOF		58 59 59 60 61	A-7094-065-A A-7094-121-A A-7093-974-A	SCREW (M2), STEP VI-151(D) BOARD, COMPLETE (PD10 VI-151(D) BOARD, COMPLETE (PD10 VC-208 BOARD, COMPLETE FP-8 FLEXIBLE BOARD	,
* 56 57	3-052-802-01 X-3948-939-1	PIN, MD GROUND FRAME ASSY, MD		62 63		FP-12 FLEXIBLE BOARD CD-202 BOARD, COMPLETE	

6-1-3. CABINET (L) SECTION



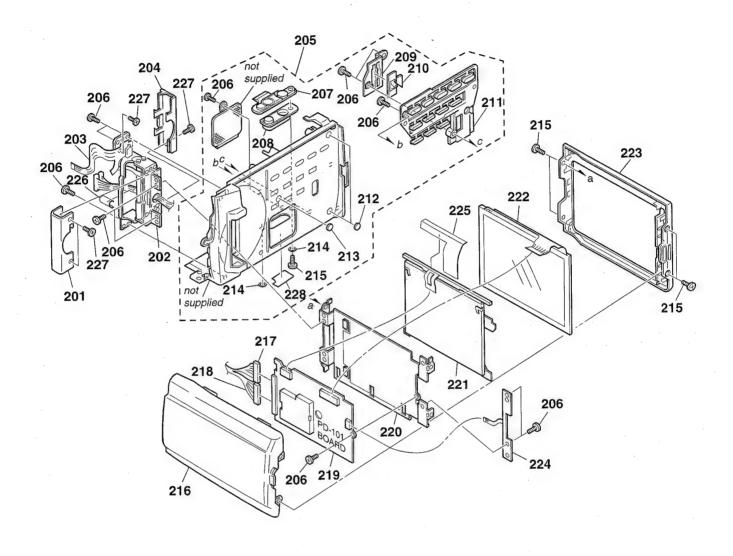
				Def No	Part No.	Description	<u>Remarks</u>
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No. 115	0.069.720-01	SCREW (M2), LOCK ACE, P2	
101	3-948-339-01	SCREW, TAPPING		116	1-475-949-21	SWITCH BLOCK, CONTROL(FK-4880)	1
102	2 051-902-01	SHEET METAL, JK		117	2.051-004-01	FRAME, FK	
103	+ c70_070_11	FP-11 FLEXIBLE BOARD		118	3-051-900-01	SHEET METAL (UPPER), STRAP	8P
104	A-7073-677-A	JK-163 BOARD, COMPLETE		119	1-774-867 - 31	CONNECTOR, EXTERNAL (HOT SHOE)	01
105	3-968-729-51	SCREW (M2), LOCK ACE, P2			01	RETAINER, SHOE	
	0.054.004.04	SHEET METAL, S TERMINAL		120	3-051-903-01 3-051-871-01		
106	3-051-901-01 1-670-990-21			121	X-3949-115-1		
107	3-051-930-01			122	X-3949-144-1		
108 110	3-051-873-01	BELT, GRIP		* 123	3-051-944-01		
109	3-051-899-01			120			
100				124	3-302-492-00		
111	3-051-864-01	BUTTON, EJECT		* 125	3-052-738-01		
112	3-051-865-01	LOCK, EJECT BRACKET (REAR), BELT		126	3-053-541-01	REINFORCEMENT, SHOE	
113	3-051-866-01			1			
114	3-703-357-08	Lua (Div. 110 2-110-1					

6-1-4. CABINET (R) SECTION



Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
* 151 152 153 * 154 155	3-052-482-01 3-051-918-01	LID, LCD HINGE FP-13 FLEXIBLE BOARD EJECTOR, CARD COVER, PM SCREW (M1.7), LOCK ACE, P2		160 * 161 162 163 164	3-051-906-01 1-958-983-11 1-958-984-11	SPEAKER (2.0 CM) HOLDER, SP HARNESS (CP-81) 12PIN HARNESS (CP-82) 13PIN PLATE ASSY, BLIND	
156 157 158 * 159	1-670-977-21 A-7073-678-A	ACE (M2), LOCK FP-9 FLEXIBLE BOARD CK-80 BOARD, COMPLETE PLATE ASSY, SP FIXED		165 166 167		SLIDE ASSY, PM SCREW (M2), LOCK ACE, P2 FP-16 FLEXIBLE BOARD	

6-1-5. LCD PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
201	3-051-921-11	COVER (FRONT), HINGE		215	3-968-729-01	SCREW (M2), LOCK ACE, P2	
202	X-3948-944-1	HINGE ASSY		216	X-3949-113-1	CABINET (C) ASSY, P	
203		FP-16 FLEXIBLE BOARD		217	1-958-983-11	HARNESS (CP-81)	
204	3-051-922-11	COVER (REAR), HINGE		218	1-958-984-11	HARNESS (CP-82)	
205	X-3949-110-1	CABINET (R) ASSY		219	A-7073-679-A	PD-101 BOARD, COMPLETE	
		,					
206	3-968-729-51	SCREW (M2), LOCK ACE, P2		220	X-3948-961-1	FRAME ASSY, PANEL	_
207	3-051-840-01	SCREW, TRIPOD		1 1 221	1-517-754-21	TUBE, FLUORESCENT, COLD CATHODI	Ξ.
208	3-051-842-01	HOLDER, TRIPOD SCREW		222	1-803-274-21	MODULE, CRYSTAL INDICATION	
209	3-051-839-01	COVER, SS MODE KNOB		223	X-3949-114-1	CABINET (M) ASSY, P	
210	3-051-835-01	KNOB, SS MODE		224	1-670-986-21	FP-19 FLEXIBLE BOARD	
					0.054.000.04	COVER LIGHT CHIRE ELEVIRIE	
211	3-051-834-01	BUTTON, R		* 225	3-051-932-01	COVER, LIGHT GUIDE FLEXIBLE	
212		CUSHION, PANEL		* 226	3-846-067-21 3-989-735-41	SPACER (C) SCREW (M1.7), LOCK ACE, P2	
213	3-052-521-01			227	3-989-730-41	BLIND, STAND	
214	3-051-848-01	WASHER, TRIPOD SCREW		228	3-002-090-01	DLIND, STAND	

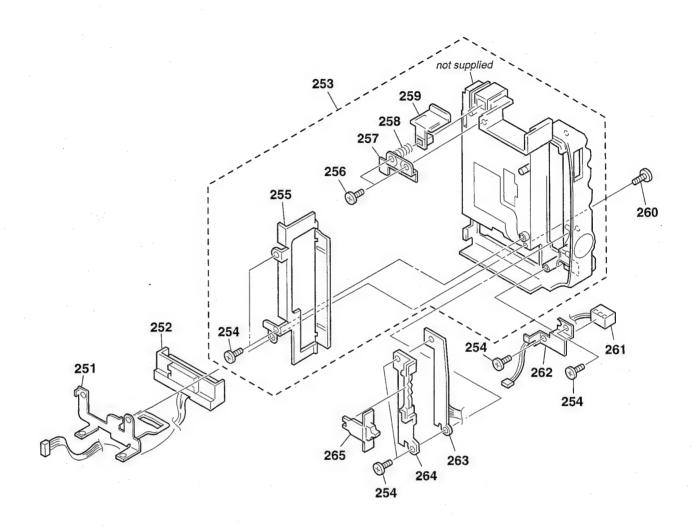
Note : The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque A sont critiques pour la sécurité.

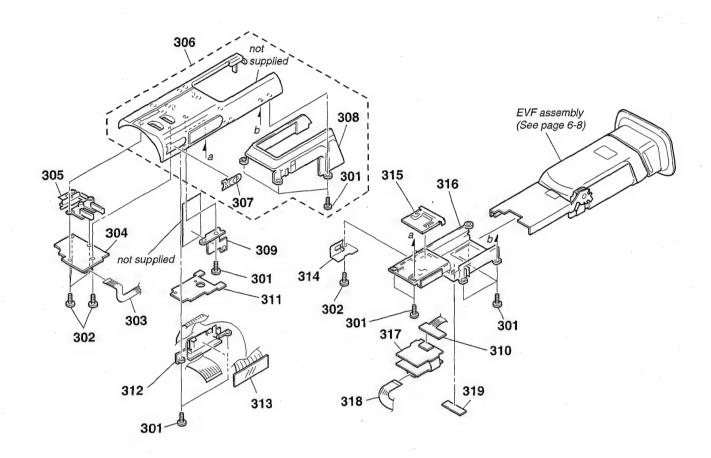
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-6. BATTERY PANEL SECTION



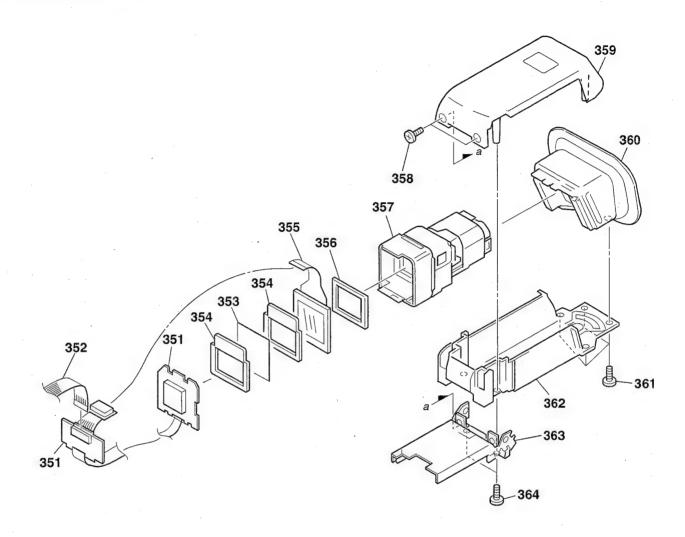
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
251 252 253	1-694-411-11	SHEET METAL (LOWER), STRAP TERMINAL BOARD, BATTERY PANEL ASSY, BATTERY		259 260		CLAW, BT LOCK SCREW (M2), LOCK ACE, P2	
253 254 255	, , , , , , , , , , , , , , , , , , , ,	SCREW, TAPPING DOOR ASSY, PM		261 262 263	3-051-915-01	CONNECTOR, DC-IN PLATE, DC FIXED FP-18 FLEXIBLE BOARD	
256 257 258	3-051-951-01	SCREW (M1.7X4) COVER, BT LOCK SPRING, BT LOCK		264 265	3-051-917-01	HOLDER, AL KNOB KNOB, AL	

6-1-7. CABINET (UPPER) SECTION



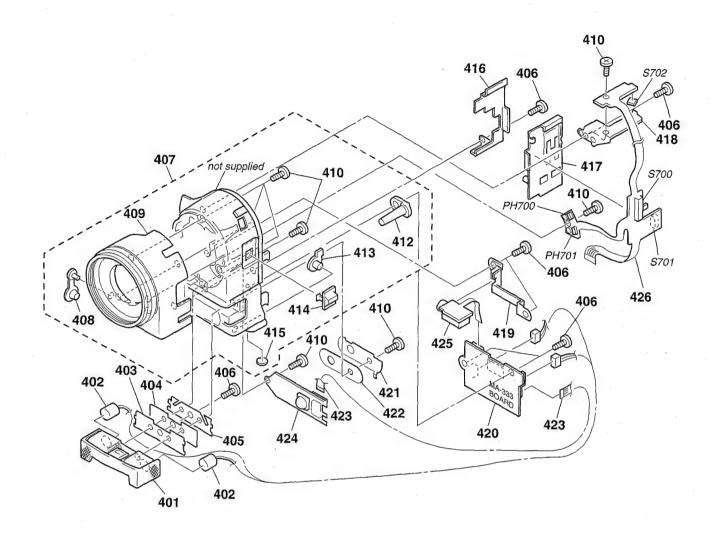
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	<u>Remarks</u>
301	3-968-729-01	SCREW (M2), LOCK ACE, P2		311 * 312	3-051-894-01 3-051-893-01	RETAINER, SLIDER RETAINER, LCD	
302 303	3-968-729-51 1-670-984-11	SCREW (M2), LOCK ACE, P2 FP-17 FLEXIBLE BOARD		313		PANEL BLOCK ASSY, INDICATION	
304		ED-48 BOARD, COMPLETE		* 314		PLATE, SLIDER GROUND	
305	3-051-892-01	BUTTON, EDIT		315	3-051-923-01	PLATE, VF CLICK	
306	X-3949-111-1	CABINET (UPPER) ASSY		316	3-051-897-01	BASE, VF SLIDE	
307	3-963-933-01	EMBLEM, CCD		317	A-7073-682-A	VF-121 BOARD, COMPLETE	
* 308	3-051-869-01	COVER, SIDE				FP-10 FLEXIBLE BOARD	
* 309	3-051-895-01	JOINT, U-R	ļ	319	3-831-441-11	CUSHION	
310	1-670-987-21	FP-20 FLEXIBLE BOARD					

6-1-8. EVF SECTION



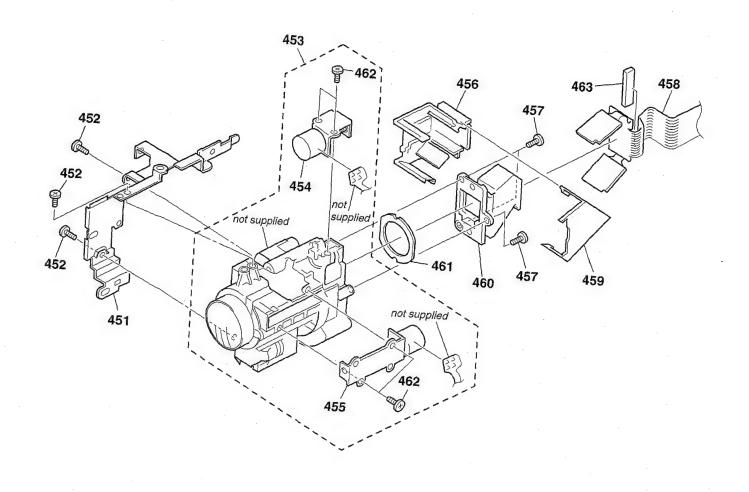
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
351 352 * 353	1-670-987-21 3-988-563-01	LB-55 BOARD, COMPLETE FP-20 FLEXIBLE BOARD ILLUMINATOR (458), BL		358 359 360	3-051-896-01 X-3949-117-1	SCREW (M2), LOCK ACE, P2 CABINET (UPPER), EVF EYE CUP ASSY	
354 355	3-989-416-01 8-753-023 - 51	CUSHION (458), LCD LCX027AK-1		361 362		SCREW (M1.7X5), TAPPING, P2 CABINET (LOWER) ASSY, EVF	
* 356 357		CUSHION (1), LCD LENS ASSY (458), VF		363 364		SLIDER ASSY, VF SCREW (M1.7X8), TAPPING, P2	

6-1-9. FRONT PANEL SECTION



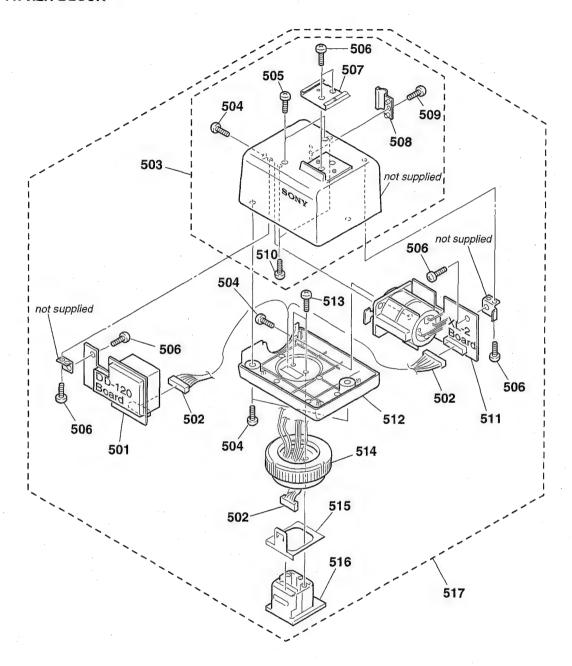
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref, No.	Part No.	Description	Remarks
401 402	X-3948-950-1 1-418-014-11	GRILLE ASSY, MICROPHONE MICROPHONE UNIT		418 * 419	X-3948-954-1	RETAINER ASSY, ND	
402	3-051-926-01	LID, MICROPHONE		* 419 420	3-051-887-01 A-7073-734-A	RETAINER, JACK MA-333(D) BOARD, COMPLETE	
* 404	3-051-927-01	PLATE, MICROPHONE CLOSE UP		* 421	3-051-888-01	RETAINER, MICROPHONE	
405	3-051-928-01	PLATE, VIBRATION PROOF		422	3-051-891-01	CUSHION, MICROPHONE RETAINER	
406	3-948-339-01	SCREW, TAPPING		423	1-670-991-11	FP-37 FLEXIBLE BOARD	
407	X-3949-112-1	PANEL ASSY, FRONT		424	A-7073-735-A	RI-10(D) BOARD, COMPLETE	
408	3-051-942-01	LID, MICROPHONE JACK		425	1-670-989-21	FP-22 FLEXIBLE BOARD	
409	3-051-907-21	COVER, FRONT		426	1-670-988-21	FP-21 FLEXIBLE BOARD	
410	3-968-729 - 51	SCREW (M2), LOCK ACE, P2				(Including S700, S	701, S702)
				PH700	8-749-014-54	HIC CNA1312K01S0	
* 412	3-051-912-01	TALLY, FRONT					
* 413	3-051-940-01	WINDOW, SIDE IR		PH701	8-749-014-54	HIC CNA1312K01S0	
414	3-051-935-01	MF KNOB		S700	1-771-487-21	SWITCH, SLIDE	
* 415	3-051-944-01	FOOT, RUBBER		S701	1-762-851-21	SWITCH, TACT	
* 416	3-051-929-01	REINFORCEMENT, MF		S702	1-762-851-21	SWITCH, TACT	
417	X-3948-949-1	RETAINER ASSY, MF	- 1				

6-1-10. LENS BLOCK SECTION



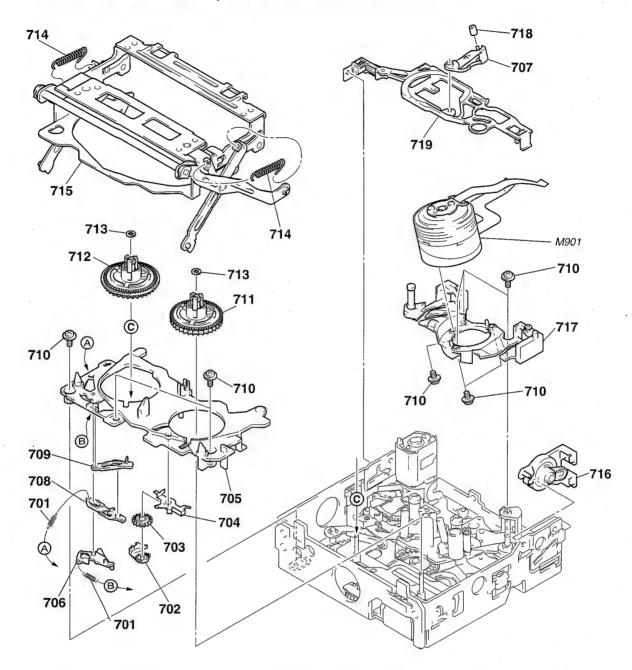
Ref. No.	Part No.	Description					
451 452	3-948-339-01	SCREW TAPPING	Remarks	Ref. No. 459	<u>Part No.</u> X-3948-953-1	Description	Remarks
453 454	1-758-174-11 3-709-428-01	LENS, 700M (VCL 4240VA)		460	A	PRISM ASSY (PD100)	
455	3-709-429-01	MOTOR, ZOOM		460	A-7030-948-A	PRISM ASSY (PD100P)	,
	0-110-191-01	COVER (L) ASSY, PRISM SCREW (M1.7X7), TAPPING, P2 CD-202 BOARD, COMPLETE		461	3-989-731-01	BURBER SEAL (Including three CCD	imagers)
		The sound being the sound bein	1:	* 463	3-053-354-01	CUSHION, CD FLEXIBLE	

6-1-11. XLR BLOCK



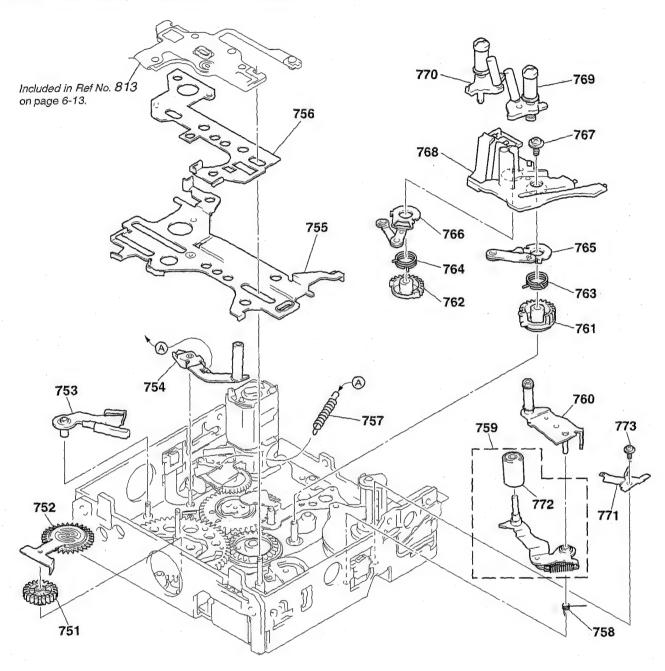
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
501 502 503 504 505	1-959-236-11 X-3949-116-1 7-627-854-38	DD-120 MOUNT HARNESS (XL-51) BOX (UPPER) ASSY, TERMINAL SCREW,PRECISION +P 2.6X5 TYPE3 SCREW +B 3X8		510 511 512 513 514	A-7073-738-A 3-052-847-01 2-370-905-51	SCREW (M1.7X3.5), SPECIAL HEAD XL-2 MOUNT BOX (LOWER), TERMINAL SCREW (B) (2X12), TAPPING RETAINER ASSY, SHOE	
506 507 * 508 509	3-724-511-02 3-678-684-01	SCREW (M2X3), LOCK ACE, P2 SHOE, ACCESSORY HOLDER, CABLE SCREW +P 2.6X4.0		515 516 517	1-774-868-11	PLATE ASSY, HOT SHOE PLUG, CONNECTOR 8P XLR BLOCK ASSY	

6-1-12. CASSETTE COMPARTMENT, DRUM AND REEL TABLE ASSEMBLY



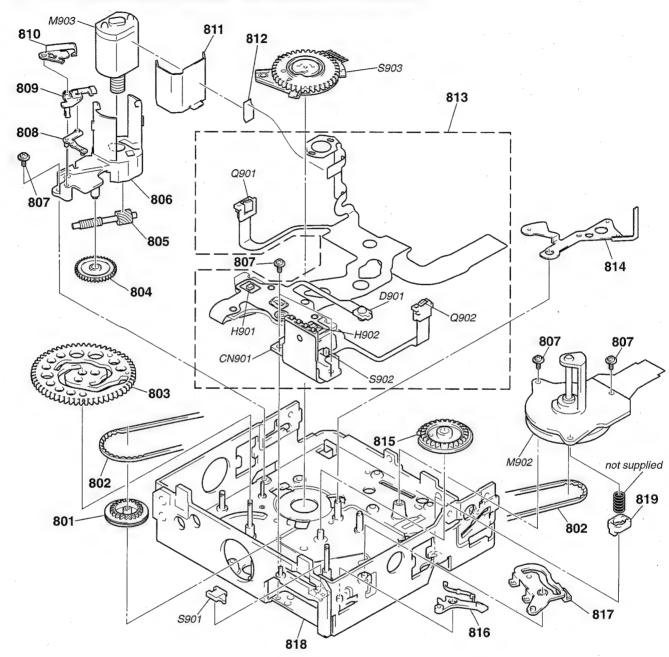
Ref.	No.	Part No.	<u>Description</u>	Remarks	Ref. No.	Part No.	Description	Remarks
70)1	3-988-312-01	SPRING, EXTENSION		711	X-3948-445-1	TABLE (T) ASSY, REEL	
70)2	3-988-220-01	BRAKE (T)		712	X-3948-444-1	TABLE (S) ASSY, REEL	
70)3	3-988-221-01	GEAR (T), BRAKE		713	3-989-465-01	WASHER, STOPPER	
70)4	3-988-222-01	SPRING (T), BRAKE		714	3-988-298-01	SPRING EXTENSION	
70)5	3-988-215-02	BASE, CASSETTE		715	X-3948-441-2	CASSETTE COMPARTMENT ASSY	
70)6	3-988-217-01	ARM (S), RESET		716	X-3948-443-2	DAMPER ASSY	
70)7	3-988-281-02	ARM, HC		717	A-7093-612-A	DRUM BASE BLOCK ASSY	
70	80	3-988-219-01	RACK (S), BRAKE		718	3-988-282-01	ROLLER, HC	
70	9	3-988-218-01	BRAKE (S)		719	3-988-283-01	STOPPER, TAPE FALL	
71	0	3-947-503-01	SCREW (M1.4X2.5)		M901	A-7048-889 - A	DRUM ASSY (DEH-14B-R)	

6-1-13. TAPE GUIDE, PINCH SLIDER ASSEMBLY AND BRAKE SLIDER ASSEMBLY



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
751	3-988-263-01	GEAR, RELAY		763	3-988-258-01	SPRING (GLT), TORSION	
752	X-3948-442-2	GEAR ASSY, GOOSENECK		764	3-988-253-01	SPRING (GLS), TORSION	
753	X-3948-435-2	PLATE ASSY, TG1 ADJUSTMENT		765	X-3948-440-1	ARM (T) ASSY, GL	
754	X-3948-434-1	ARM ASSY, TG1			•		
755	X-3948-428-2	SLIDER ASSY, PINCH		766	X-3948-439-2	ARM (S) ASSY, GL	
				767	3-947-503-01	SCREW (M1.4X2.5)	
756	X-3948-766-1	SLIDER ASSY, BRAKE		768	3-988-242-01	RAIL, GUIDE	
757	3-988-270-01	SPRING (TG1), TENSION COIL		769	X-3948-438-3	COASTER (T) ASSY	
758	3-988-233-01			770	X-3948-437-1	COASTER (S) ASSY	
759	X-3948-433-2	ARM ASSY, PINCH					
760	A-7093-501-A	ARM BLOCK ASSY, TG7		771	3-988-690-02	SPRING, TG7 RETAINER	
				772	X-3748-630-2	ROLLER ASSY (DIA. 5.6), PINCH	
761	3-988-257-01	GEAR (T), GL		773	3-053-083-01	SCREW	
762	3-988-252-02	GEAR (S), GL					

6-1-14. EACH GEARS AND LOADING / CAPSTAN MOTOR ASSEMBLY



Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	Remarks
801	3-988-274-01	PULLEY, CONVERSION		816	3-988-223-01	ARM, EJECT	
802	3-988-276-02	BELT, TIMING		817	3-988-224-01	ARM, PINCH PRESS	
803	3-988-216-01	GEAR, CAM		818	X-3948-431-2	CHASSIS ASSY	
804	3-988-211-01	GEAR, DECELERATION		819	3-050-170-01	HOLDER	
805	3-988-210-01	SHAFT, WORM		CN901	1-784-723-11	PIN, CONNECTOR 4P	
806	3-988-207-01	HOLDER, MOTOR		D901	8-719-067-13	DIODE GL453K	
807	3-947-503-01	SCREW (M1.4X2.5)		H901	8-719-061-28	DIODE HW-105C-FT-V (T REEL SENS	OR)
808	3-988-303-01	ARM, SPRING HOOK DRIVING		H902	8-719-061-28		,
809	3-988-271-01	BASE, SPRING HOOK FULCRUM		M902	8-835-606-01	MOTOR, DC SCD15A/C-NP (CAPSTAI	(V)
810	3-988-302-01	HOOK, TG1 SPRING		M903	X - 3948-346-1	MOTOR ASSY, L (LOADING)	,
811	3-988-208-01	SHIELD, MOTOR		Q901	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE	END)
812	1-657-785-11	FP-248 FLEXIBLE BOARD		Q902		PHOTO TRANSISTOR PT4850F (TAPE	
813	A-7073-418-A	FP-594 BOARD, COMPLETE		S901	1-771-039-51		,
814	3-988-280-03	ARM, HC DRIVING		S902	1-572-719-32	SWITCH, PUSH (1 KEY)(REC PROOF)	ı
815	3-988-239-01	GEAR, GL DRIVING		S903	1-771-325-11	ENCODER, ROTARY (SWITCH) (MODE	

6-2. ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ne les remplacer que par une pièce portant le numéro spécifié.

Abbreviation
 CND: Canadian model

• It

parts list may be different from the parts specified in the diagrams or the components used on the set.

- XX, -X mean standardized parts, so they may

· Due to standardization, replacements in the

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS: uF: μF

RESISTORS
 All resistors are in ohms.
 METAL: metal-film resistor
 METAL OXIDE: Metal Oxide-film resistor
 F: nonflammable

• COILS uH: μH

SEMICONDUCTORS
In each case, u: μ, for example: uA...: μA..., uPA..., μPA..., uPB..., μPC..., μPC..., μPC...
uPD..., μPD...

			u	π. μι.				uz 2011, prz 2011	
Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
	A-7073-676-A	CD-202 BOARD, C					A-7073-678-A	CK-80 BOARD, COMPLETE ***********************************	
		********			00 Series)				,000 Series)
	(1010	0,101,102 is not in						(Holling Holling ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	. (1010	0,101,102 13 1101 111	oracca iii c	ino compi	010 000, 01,		3-051-919-01	SHEET, LI PROTECTION	
		< CAPACITOR >							
								< BATTERY >	
C100		CERAMIC CHIP	0.1uF	10%	16V	A DT7000	1 500 704 01	BATTERY, V/L RICHARGEABL	
C101		CERAMIC CHIP	0.1uF 0.1uF	10% 10%	16V 16V	∆ B17200	1-040-724-21	BATTERT, WE NICHARGEADE	
C102		CERAMIC CHIP CERAMIC CHIP	0.1uF	10%	16V			< CAPACITOR >	
C103 C105		CERAMIC CHIP	0.1uF	10%	16V				
0100	1 107 020 11	02.0.000	01141			C7200	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V				
C107	1-135-210-11	TANTALUM CHIP		20%	10V			< CONNECTOR >	
C108		TANTAL. CHIP	6.8uF	20%	16V		. ==== ================================	DIM COMMITTED (DO DOADD) 10D	
C110	1-164-360-11	CERAMIC CHIP	0.1uF	000/	16V		1-779-064-11	PIN, CONNECTOR (PC BOARD) 12P PIN, CONNECTOR (PC BOARD) 13P	
C111	1-135-210-11	TANTALUM CHIP	4./UF	20%	10V			CONNECTOR, FFC/FPC 6P	
0440	1 104 200 11	CEDAMIC CHID	0.1uF		16V			CONNECTOR, FFC/FPC 6P	
C112 C115		CERAMIC CHIP TANTAL. CHIP	6.8uF	20%	16V			CONNECTOR, BOARD TO BOARD 60)P .
C117	1-135-210-11	TANTALUM CHIP		20%	10V				
C118	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V			PIN, CONNECTOR (1.5MM)(SMD) 2	P
C119	1-164-360-11		0.1uF		16V		1-766-354-21		
								CONNECTOR, EXTERNAL	
		< CONNECTOR >				CN7210	1-764-680-21	CONNECTOR, FFC/FPC (ZIF) 8P	
CN100	1-785-433-21	CONNECTOR, BO	ARD TO B	OARD 40F)			< DIODE >	
		< COIL >				D7200	8-719-064-61	DIODE 01BZA8.2(TE85L)	
		C 00127				D7201		DIODE 01BZA8.2(TE85L)	
L100	1-412-963-11	INDUCTOR 1000	ιH			D7202		DIODE MA111-TX	
L101	1-412-963-11					D7203		DIODE MA8082-TX	
L102	1-412-963-11	INDUCTOR 100u	ıH			D7204	8-719-064-61	DIODE 01BZA8.2(TE85L)	
		< TRANSISTOR >	,			D7206	8-719-064-61	DIODE 01BZA8.2(TE85L)	÷
						D7207	8-719-064-61	DIODE 01BZA8.2(TE85L)	
Q100	8-729-117-73	TRANSISTOR 2	SC4178-F	13F14-T1		D7211		DIODE 01BZA8.2(TE85L)	
Q101	8-729-117-73	TRANSISTOR 2	SC4178-F	13F14-T1		D7212		DIODE 01BZA8.2(TE85L)	
Q102	8-729-117-73	TRANSISTOR 2	SC4178-F	13F14-T1		D7214	8-719-064-61	DIODE 01BZA8.2(TE85L)	
		< RESISTOR >				D7215	8-719-064-61	DIODE 01BZA8.2(TE85L)	
R100	1-216-864-11	METAL CHIP	0	5%	1/16W			< IC >	
R101	1-216-864-11	METAL CHIP	0	5%	1/16W	107000	0.750.404.50	10 PH0700K F0	
R102	1-216-864-11		0	5%	1/16W	107200	o-/59-494-53	IC BU9729K-E2	
R103	1-216-829-11 1-216-829-11	METAL CHIP METAL CHIP	4.7K 4.7K	5% 5%	1/16W 1/16W	/		< TRANSISTOR >	
R104	1-210-029-11	WEIAL OFF	7.71	J /0	1/1044				
R105	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	Q7200		TRANSISTOR 2SD1819A-QRS-TX	
and a complete	or an extra processor in	and the first of the second of the streets of the	-Ale mount	Transfer and	and the second	Q7201	8-729-804-41	TRANSISTOR 2SB1122-ST-TD	

CK-80 DD-120

Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	Description			Remarks
	•	< RESISTOR >					A-7073-737-A	DD-120 BOARD,	COMPLETE	Ē	
								*******	******	:	
R7200	1-216-809-11	METAL CHIP	100	5%	1/16W				(F	Ref.No.:9,0	00 Series)
R7201	1-216-864-11	METAL CHIP	0	5%	1/16W						
R7202	1-216-833-11	METAL CHIP	10K	5%	1/16W			< CAPACITOR >			
R7203	1-216-833-11	METAL CHIP	10K	5%	1/16W			•			
R7204	1-216-833-11	METAL CHIP	10K	5%	1/16W	C202	1-113-985-11	TANTAL. CHIP	10uF	20%	20V
						C203	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R7205	1-216-833-11	METAL CHIP	10K	5%	1/16W	C204	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R7206	1-216-833-11	METAL CHIP	10K	5%	1/16W	C205	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R7207	1-216-833-11		10K	5%	1/16W	C206	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R7208	1-216-855-11	METAL CHIP	680K	5%	1/16W	0200	1 101 020 11	OLITA MINIO OTHI	o. rui	1070	100
R7209	1-216-864-11	METAL CHIP	0	5%	1/16W	C207	1-124-598-11	ELECT	22uF	20%	25V
h/209	1-210-004-11	WEIAL OITH	U	J /d	171000	C210	1-110-618-11		12uF	20%	63V
D7040	. 4 040 000 44	MACTAL CLUD	1 01/	5%	1/16W	C210	1-165-319-11		0.1uF	2070	50V
R7210	1-216-822-11	METAL CHIP	1.2K								
R7211	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	C212	1-165-319-11	CERAMIC CHIP	0.1uF	000/	50V
R7212	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	C213	1-110-618-11	ELECT	12uF	20%	63V
R7213	1-216-841-11		47K	5%	1/16W						
R7214	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C214	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C216	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R7215	1-216-823-11	METAL CHIP	1.5K	5%	1/16W						
R7216	1-216-823-11	METAL CHIP	1.5K	5%	1/16W			< CONNECTOR >			
R7217	1-216-823-11		1.5K	5%	1/16W						
R7218	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	CN201	1-691-550-11	PIN, CONNECTO	R (1.5MM)	(SMD) 3P	
R7219	1-216-827-11	METAL CHIP	3.3K	5%	1/16W				, , , , , , , ,	(
11/213	1-210 021 11	WEINE OIM	0.010	070	17.1011			< DIODE >			
R7220	1-216-827-11	METAL CHIP	3.3K	5%	1/16W			(DIODE)			
			6.8K	5%	1/16W	D201	8-719-987-21	DIODE SB02-09	OCD.TP		
R7221	1-216-831-11					0201	0-719-907-21	טוטטב סטטב-טי	30F-1D		
R7222	1-216-831-11		6.8K	5%	1/16W			. 10			
R7223	1-216-837-11		22K	5%	1/16W			< IC >			
R7224	1-216-837-11	METAL CHIP	22K	5%	1/16W						
						IC201	8-759-521-35	IC TL5001CDR		•	
R7225	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R7227	1-216-809-11	METAL CHIP	100	5%	1/16W			< COIL >			
R7228	1-216-833-11	METAL CHIP	10K	5%	1/16W						
R7229	1-216-837-11	METAL CHIP	22K	5%	1/16W	L201	1-412-058-11	INDUCTOR CHIP	10uH		
R7230	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	L202	1-416-906-11	INDUCTOR 33u	Н		
						L203	1-414-405-11	INDUCTOR 150	uН		
R7231	1-216-827-11	METAL CHIP	3.3K	5%	1/16W						
R7232	1-216-823-11		1.5K	5%	1/16W			< TRANSISTOR :	>		
R7233	1-216-822-11	METAL CHIP	1.2K	5%	1/16W						
R7234	1-216-809-11	METAL CHIP	100	5%	1/16W	Q201	8-729-033-65	TRANSISTOR 2	S.1204-T1F	₹	
R7234	1-216-864-11		0	5%	1/16W	Q202		TRANSISTOR 2			
n/230	1-210-004-11	MILIAL OTH		370	1/1040	Q203		TRANSISTOR 2			
		< SWITCH >				Q204		TRANSISTOR 2			
		< 20011011 >				Q204 Q205					
07000	4 700 054 04	CWITCH KEY D	7 A D D / B A E B	400V .)		Q205	0-129-111-32	TRANSISTOR 2	3041/7-11	LOLO	
S7200	1-762-851-21		,	,		0000	0.700.447.00	TRANSICTOR O	004477.T4	UELC	
S7201	1-762-851-21		•)	Q206		TRANSISTOR 2			
S7202	1-762-851-21		,	*		Q207		TRANSISTOR 2			
S7203	1-762-851-21		•			Q208	8-729-117-32	TRANSISTOR 2	SC4177-T1	L5L6	
S7204	1-762-851-21	SWITCH, KEY BO	DARD (DISI	PLAY)							
								< RESISTOR >			
S7205	1-762-851-21	SWITCH, KEY BO	DARD (DIG	ITAL EFFE	CT)						
S7206	1-762-851-21	SWITCH, KEY BO	DARD (MEN	MORY IND	EX)	R201	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
S7207	1-762-851-21		DARD (MEN	(U)	•	R202	1-216-847-11	METAL CHIP	150K	5%	1/16W
S7208	1-762-851-21	•			ECT)	R203	1-216-846-11	METAL CHIP	120K	5%	1/16W
S7209	1-762-851-21	,	,		,	R204	1-216-849-11	METAL CHIP	220K	5%	1/16W
01208	1702 001 21	Jillion, NET D	THE WILL		· - /	R205	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
07010	1 760 640 04	SWITCH, SLIDE	(ZERDA)			11200	1 210 020-11	WEIAE OIII	£.4N	J /0	1/1000
S7210	1-762-648-21			AUDA DI V	VI.	Dane	1_016 005 44	METAL CLUD	2 21/	E0/	1/1 CW
S7211	1-762-851-21	SWITCH, KEY BO	•		VI)	R206	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
S7212	1-762-851-21		•	,		R208	1-218-881-11	RES,CHIP	27K	0.50%	1/16W
S7213	1-762-851-21					R209	1-218-877-11	RES,CHIP	18K		1/16W
S7214	1-771-487-21	SWITCH, SLIDE	(AUTO LOC	K/HOLD)		R210	1-218-847-11	RES,CHIP	1K	0.50%	1/16W
						R211	1-216-809-11	METAL CHIP	100	5%	1/16W
S7219	1-762-649-21	SWITCH, ROTAR	Y (SEL/PU	SH EXEC)							
						I .					

					DD-1	20	ED-	18 F	P-21	FP-594	JK	-163
R212 R213 R214	1-216-864-11 1-218-865-11 1-216-853-11	Description METAL CHIP RES,CHIP METAL CHIP METAL CHIP	0 5.6K 470K 10K	5% 0.50% 5% 5%	Remarks 1/16W 1/16W 1/16W 1/16W	Ref. No. Q901 Q902		29-907-25	Description < TRANSIST PHOTO TRAI PHOTO TRAI	OR > NSISTOR PT48 NSISTOR PT48	50F (TAPE 50F (TAPE	Remarks END) TOP)
R217 R218	1-216-825-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP	4.7K 2.2K 100K 47K	5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W	S901 S902 S903	8-57	71-039-51 72-719-32 71-325-11	SWITCH, PL	ISH (C IN SW) ISH (1 KEY)(RE ROTARY (SWIT()
	A-7073-684-A	ED-48 BOARD, (******** (R	ef.No.:10,0	000 Series)	Residence		100 - 10 to	JK-163 BOA	RD, COMPLETE		
CN7000 D7000 D7001	1-573-346-21 8-719-404-49 8-719-420-14	< CONNECTOR: CONNECTOR, FI < DIODE > DIODE MA111 DIODE MA808	FC/FPC 6P -TX			C7100 C7101 C7102 C7102 C7104	1 1-1 2 1-1 3 1-1	62-964-11 62-964-11 62-964-11 62-964-11 62-964-11	< CAPACITO CERAMIC C CERAMIC C CERAMIC C CERAMIC C CERAMIC C CERAMIC C	HIP 0.001uF HIP 0.001uF HIP 0.001uF HIP 0.001uF	10% 10% 10% 10%	50V 50V 50V 50V 50V
		< RESISTOR >	101/	5%	1/16W	CN71	00 1-7	79-369-11	< CONNECTO	OR >	PE(INDI)4F	,
R7000 R7001 R7002 R7003 R7004	1-216-833-11 1-216-822-11 1-216-823-11 1-216-827-11 1-216-831-11	METAL CHIP METAL CHIP METAL CHIP	10K 1.2K 1.5K 3.3K 6.8K	5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W	CN71	01 1-7	79-331-11 84-423-21	CONNECTO	R, FFC/FPC 14P R, FFC/FPC (ZIF		
\$7000 \$7001 \$7002	1-762-851-21	< SWITCH > SWITCH, KEY E SWITCH, KEY E SWITCH, KEY E SWITCH, KEY E	BOARD (BAC BOARD (EDI	CK LIGHT) TSEARCH	-)	D710 D710 D710 D710 D710	02 8-7 03 8-7 04 8-7	19-064-61 19-064-61 19-064-61 19-064-61 19-064-61	DIODE 011 DIODE 011 DIODE 011	BZA8.2(TE85L) BZA8.2(TE85L) BZA8.2(TE85L) BZA8.2(TE85L) BZA8.2(TE85L) BZA8.2(TE85L)		
\$7003	1-670-988-21	FP-21 FLEXIBL	erenzia e er	I maria	Typy y mesonsylation (A. y.)	D710)6 8-7	19-064-61	DIODE 01	BZA8.2(TE85L) BEAD >		
		************** (\$700,701,702 < PHOTO INTER	******* (F is included		,000 Series) kible board.)	FB71 FB71 FB71 FB71 FB71	1 1-5 2 1-5 3 1-5	500-444-11 500-444-11 500-444-11 500-444-11	FERRITE FERRITE FERRITE	OUH OUH OUH OUH		
PH700 PH701	8-749-014-54	HIC CNA1312K HIC CNA1312K FP-594 FLEXIB	01S0 LE BOARD			FB71 FB71 FB71 FB71 FB71	6 1-5 17 1-5 18 1-5		FERRITE FERRITE FERRITE	OUH OUH OUH OUH OUH		
		< CONNECTOR		(Ref.No.:9	,000 Series)	J710	nn 1-1	565-276 - 31	< JACK TILT	RA SMALL 1P ((ANC)	
CN001	1-784-723-11	PIN, CONNECT	OR 4P			J710 J710	1-1	563-282-21 778-040-11	JACK, SMA JACK, SMA	ALL TYPE (HEAD	PHONES)	
D901 H901 H902	8-719-067-13 8-719-061-28 8-719-061-28	DIODE GL453H < HOLE ELEME DIODE HW-108	ENT > 5-FT-V (S RI			L710 L710 L710 L710 L710	01 1-4 02 1-4 03 1-4	414-757-11 414-757-11 414-757-11	< COIL > INDUCTOR INDUCTOR INDUCTOR INDUCTOR INDUCTOR	100uH 100uH 100uH		
									< RESISTO	IR >		
						R710	02 1-	216-864-11	METAL CH	IP 0	5%	1/16W

LB-55 JK-163 MA-333

Ref. No.	Part No.	Description		<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>
		< VARISTOR >			C7308	1-135-259-11	TANTAL CHIP	10uF	20%	6.3V
VDD711	1-801-862-11	VARISTOR, CHIP			C7309 C7310	1-135-259-11 1-162-968-11	TANTAL. CHIP CERAMIC CHIP	10uF 0.0047uF	20% 10%	6.3V 50V
		VARISTOR, CHIP			C7312	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	1-801-862-11	VARISTOR, CHIP			C7313	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
	1-801-862-11	VARISTOR, CHIP			07044	4 400 007 44	OFFIANA OLUF	0.0000 -5	400/	F0) (
	1-801-862-11	VARISTOR, CHIP			C7314 C7315	1-162-967-11 1-162-964-11	CERAMIC CHIP	0.0033uF 0.001uF	10% 10%	50V 50V
New 2484 (1.44)					C7316	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
	A-7073-683-A	LB-55 BOARD, COMPLETE			C7317	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		***********		2000 1 1	C7318	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	•	(R	ef.No.:10,	,000 Series)	C7319	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CAPACITOR >			C7320	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
					C7321	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C5201	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V	C7322	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5202	1-113-642-11	TANTAL. CHIP 47uF CERAMIC CHIP 4.7uF	20% 10%	10V 10V	C7324	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5203 C5205	1-115-566-11 1-107-682-11	CERAMIC CHIP 1uF	10%	16V	C7325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
△ C5206	1-163-020-00	CERAMIC CHIP 0.0082ul		50V	C7326	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
					C7328	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
△ C5207	1-163-020-00	CERAMIC CHIP 0.0082ul CERAMIC CHIP 0.0082ul		50V 50V	C7329 C7330	1-164-245-11 1-162-966-11	CERAMIC CHIP	0.015uF 0.0022uF	10% 10%	25V 50V
△ C5208	1-163-020-00	GENAIVIIG GRIP 0.000201	1076	507	0/330	1-102-900-11	CENAMIC CHIE	0.002241	10 /0	307
		< CONNECTOR >			C7331	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
					C7332	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
	1-784-421-11	CONNECTOR, FFC/FPC (ZIF			C7333 C7338	1-164-245-11 1-164-227-11	CERAMIC CHIP CERAMIC CHIP	0.015uF 0.022uF	10%	25V 25V
CN5202	1-691-354-21	CONNECTOR, FFC/FPC (ZIF) 102		C7339	1-164-227-11	CERAMIC CHIP	0.022uF 0.022uF	10%	25V
		< DIODE >			0,000		0211111110 01117	0.02247	,.	207
					C7340	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
△ D5201	8-719-056-49	DIODE 1SS370(TE85L)			C7341 C7342	1-164-245-11 1-162-962-11	CERAMIC CHIP	0.015uF 470PF	10% 10%	25V 50V
		< COIL >			C7342	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
		(00.2)			C7345	1-115-156-11	CERAMIC CHIP	1uF		10V
L5201	1-412-031-11	INDUCTOR CHIP 47uH								
L5202	1-412-029-11	INDUCTOR CHIP 10uH			C7346 C7347	1-115-156-11 1-164-156-11	CERAMIC CHIP	1uF 0.1uF		10V 25V
		< FLUORECENT INDICATOR	>		C7350	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
					C7351	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
△ ND5201	1-517-758-11	TUBE, FLUORESCENT (0.55	INCH)		C7352	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
		< TRANSISTOR >			C7353	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
A 05004	0.700.000.04	TRANSISTOR EVOIS TIL			C7354	1-135-259-11 1-135-259-11	TANTAL CHIP	10uF 10uF	20% 20%	6.3V 6.3V
△ Q5201	8-729-039-24	TRANSISTOR FX216-TL1			C7355 C7356	1-107-826-11	TANTAL. CHIP CERAMIC CHIP	0.1uF	10%	16V
		< RESISTOR >			C7357	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
				4/1014			CONNECTOR			
R5201	1-216-839-11	METAL CHIP 33K METAL CHIP 100	5% 5%	1/16W 1/16W			< CONNECTOR :	> .		
R5202	1-216-809-11	IVIETAL OFFE TOO	J /0	1/1000	* CN7300	1-695-320-21	PIN, CONNECTO	R (1.5MM)(8	SMD) 2F	
		< TRANSFORMER >			1	1-580-055-21	PIN, CONNECTO	R 2P	,	
						1-766-340-21	CONNECTOR, FR			
△T5201	1-426-848-51	TRANSFORMER, INVERTER			1	1-766-335-21 1-779-337-11	CONNECTOR, FF			
Sale Lange										
	A-7073-734-A	MA-333(D) BOARD COMPL ************************************			CN7305	1-779-327-11	CONNECTOR, F	-C/FPC 6P		
		(Re	ef.No.:10,	000 Series)			< DIODE >			
		< CAPACITOR >			D7300	8-719-061-82	DIODE TLSU10	02(TPX1.SO	MY)	
		Commonons			D7304	8-719-064-61	DIODE 01BZA8	.2(TE85L)	,	
C7300	1-135-259-11	TANTAL. CHIP 10uF	20%	6.3V	D7305	8-719-420-14	DIODE MA8082	2-TX		
C7301	1-162-966-11	CERAMIC CHIP 0.0022ul		50V			EEDDITE DEAE			
C7305 C7306	1-162-970-11 1-162-927 - 11	CERAMIC CHIP 0.01uF CERAMIC CHIP 100PF	10% 5%	25V 50V			< FERRITE BEAD			
C7307	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	FB730	1-500-444-11	FERRITE OU	Н		
					FB731	1-500-444-11	FERRITE OU	Н		
						Note:		Note :		
					7	The components	identified by	es composa		
		•				mark ∆ or dotted ∆ are critical for :		une marque cour la sécuri		omques
					F	Replace only with	part number	Ne les rempla pièce portant l		
				6-	10 18	specified.		אפטס טטו נפנוניו	o numer	, opecille.

MA-333

PD-101

Re	f. No.	Part No.	<u>Description</u>			Remarks	Ref. No.	<u>Part No.</u> A-7073-679-A	Description PD-101 BOARD,	COMPLETE		Remarks
			< IC >					A-10/3-0/3-A	**********			
	IC7301 IC7302 IC7303	8-759-248-31 8-759-633-55 8-759-111-56	IC BA7780KV-I IC M5222FP-E IC uPC4572G2	1					< CAPACITOR >	(Ref	f.No.:10,0	000 Series
			< TRANSISTOR	>			C5501	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	Q7304	8-729-037-53	TRANSISTOR	2SB1462J-0	QR(K8).SO		C5502 C5503 C5504	1-107-826-11 1-164-943-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF	10% 10% 10%	16V 16V 16V
			< RESISTOR >				C5505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R7302	1-500-444-11		JH 47	5%	1/16W	C5506 C5507	1-107-826-11 1-104-752-11	CERAMIC CHIP	0.1uF 33uF	10% 20%	16V 6.3V
	R7303	1-216-805-11	METAL CHIP	1K	5%	1/16W	C5508	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	R7304 R7305	1-216-821-11 1-216-837-11	METAL CHIP	22K	5%	1/16W	C5509	1-135-221-11	TANTAL, CHIP	3.3uF	20%	4V
	R7306	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	C5510	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
	R7309	1-216-835-11	METAL CHIP	15K	5%	1/16W	C5512	1-104-851-11 1-107-826-11	TANTAL. CHIP	10uF 0.1uF	20% 10%	10V 16V
	R7310	1-216-835-11	METAL CHIP	15K	5%	1/16W	C5513	1-107-826-11	CERAMIC CHIP	0.1uF 0.33uF	10%	16V
	R7311	1-216-839-11	METAL CHIP	33K	5%	1/16W 1/16W	C5514 C5515	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
	R7312 R7313	1-216-836-11 1-216-825-11	METAL CHIP	18K 2.2K	5% 5%	1/16W	C5516	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
	117010		THE ITTE OTHER									4007
	R7314	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C5517	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	R7315	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	C5520	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
	R7316	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	C5521	1-164-933-11	CERAMIC CHIP	220PF	10%	16V 16V
	R7317	1-216-821-11	METAL CHIP	1K 1K	5% 5%	1/16W 1/16W	C5522 C5602	1-164-933-11 1-113-985-11	CERAMIC CHIP	220PF 10uF	10% 20%	20V
	R7318	1-216-821-11	METAL CHIP	IK	J /6	. 171044	03002	1-110-303 11	IANTAL OTT	1001	2070	
	R7319	1-216-835-11	METAL CHIP	15K	5%	1/16W	C5603	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
	R7320	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C5604	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	R7321	1-216-833-11		10K	5%	1/16W	C5605	1-107-826-11	CERAMIC CHIP	0.1uF 0.1uF	10% 10%	16V 25V
	R7322 R7324	1-216-835-11 1-216-835-11	METAL CHIP METAL CHIP	15K 15K	5% 5%	1/16W 1/16W	C5607 C5608	1-164-004-11 1-162-964-11	CERAMIC CHIP	0.10F	10%	50V
	117027										-	4014
	R7326	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C5610	1-164-872-11	CERAMIC CHIP	82PF	5%	16V
	R7327	1-216-833-11	METAL CHIP	10K	5%	1/16W	C5611	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
	R7328	1-216-839-11	METAL CHIP	33K	5%	1/16W	C5612	1-164-872-11 1-164-739-11	CERAMIC CHIP	82PF 560PF	5% 5%	16V 50V
	R7331	1-216-835-11	METAL CHIP	15K 33K	5% 5%	1/16W 1/16W	C5613 C5616	1-104-739-11	CERAMIC CHIP	1uF	10%	10V
	R7332	1-216-839-11	METAL CHIP	JON	370	1/1000	03010	1-103 302 11	OLI WING OTH	141	1070	101
	R7342	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C5618	1-104-916-11	TANTAL. CHIP	6.8uF	20%	20V
	R7344	1-216-839-11		33K	5%	1/16W	C5619	1-162-970-11	CERAMIC CHIP	0.01uF	10% 10%	25V 16V
	R7345	1-216-834-11	METAL CHIP	12K	5% 5%	1/16W 1/16W	C5620 C5621	1-107-826-11 1-113-985-11	CERAMIC CHIP TANTAL. CHIP	0.1uF 10uF	20%	20V
	R7347 R7348	1-216-839-11 1-216-818-11	METAL CHIP	33K 560	5% 5%	1/16W	C5622	1-107-682-11		1uF	10%	16V
	N/340	1-210-010-11	WE INC OTH	000	0 70	171011	00022					
	R7350	1-216-837-11		22K	5%	1/16W	C5624	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
	R7351	1-216-849-11		220K	5%	1/16W	C5701	1-113-991-11	TANTAL. CHIP	33uF	20%	16V
	R7352	1-216-833-11		10K	5%	1/16W	C5702	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
	R7353	1-216-833-11		10K	5%	1/16W	C5703	1-164-661-11	CERAMIC CHIP	0.018uF	10%	50V
	R7354	1-216-845-11	METAL CHIP	100K	5%	1/16W	C5704	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
	R7355	1-216-837-11		22K	5%	1/16W	△ C5705	1-113-521-11	CERAMIC CHIP	12PF	10%	3KV
	R7356	1-216-837-11		22K	5%	1/16W	C5706	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R7357	1-216-821-11		1K	5%	1/16W			00111170775			
	R7358	1-216-821-11		1K	5%	1/16W			< CONNECTOR >	•		
	R7359	1-216-841-11	METAL CHIP	47K	5%	1/16W	CN5601	1-573-364-11	CONNECTOR, FF	C/FPG 24P		
	R7360	1-216-841-11	METAL CHIP	47K	5%	1/16W		1-764-709-11	CONNECTOR, FF		10P	
	R7361	1-216-815-11	METAL CHIP	330	5%	1/16W	CN5802	1-779-064-11	PIN, CONNECTO	R (PC BOAF	RD) 12P	
	R7363	1-216-848-11		180K	5%	1/16W	CN5803	1-779-065-11	PIN, CONNECTO	R (PC BOAF	(D) 13P	
									CONNECTOR, FF			

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ∆ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

PD-101

Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>				Remarks
		< DIODE >				R5607	1-218-990-11	SHORT	0			
D5602	8-713-102-80	DIODE 173	60-01-T8A			R5608 R5610	1-218-990-11 1-218-977-11	SHORT RES CHIP	0	100K	5%	1/16W
D5602 D5604	8-719-422-31					R5614	1-218-987-11			680K	5%	1/16W
△ D5704	8-719-404-49					R5615	1-218-980-11			180K	5%	1/16W
D5801	8-719-062-16											
D5802	8-719-062-16	DIODE 01Z	A8.2(TPL3)			R5620	1-218-965-11			10K	5%	1/16W
		. 10 .				R5621 R5622	1-218-989-11 1-218-989-11			1M 1M	5% 5%	1/16W 1/16W
		< 1C >				R5623	1-218-975-11			68K	5%	1/16W
IC5501	8 - 759-364-05	IC M62376	GP-65AD			R5624	1-218-969-11			22K	5%	1/16W
IC5501	8-759-530-19	IC MB40D0	01PFV-G-BND	-ER								
IC5502	8-759-539-27					R5627	1-208-927-11		٠.	47K	0.50%	1/16W
IC5601	8-759-544-46 8-759-327-01					R5628 R5629	1-218-990-11 1-218-975-11		0	68K	5%	1/16W
IC5602	0-109-321-01	IC NONIOOZ	V(1LZ)			R5630	1-218-973-11	,		47K	5%	1/16W
105701	8-759-075-70	IC TA75S39	93F-TE85R			R5634	1-218-961-11	*		4.7K	5%	1/16W
		< COIL >				R5640	1-208-935-11	RES,CHIP		100K	0.50%	1/16W
. ====	===	INDUCTOR	40			R5641	1-208-719-11			33K	0.50% 5%	1/16W 1/16W
L5500 L5501	1-414-754-11 1-414-756-11					R5643 R5644	1-218-974-11 1-218-971-11	RES,CHIP		56K 33K	5%	1/16W
L5501	1-414-754-11	INDUCTOR				R5649	1-218-990-11	•	0	·	0 /0	1/1000
L5503	1-414-754-11	INDUCTOR										
L5603	1-414-754-11	INDUCTOR	10uH			R5651	1-208-719-11			33K		
		INDUCTOR	4011			R5652	1-208-715-11			22K	0.50%	1/16W
L5604 L5605	1-414-754-11 1-412-945-11	INDUCTOR				R5653 R5654	1-208-721-11 1-208-719-11			39K 33K	0.50%	1/16W 1/16W
L5701		INDUCTOR				R5657	1-218-990-11	SHORT	0	OOK	0.0070	171011
20701	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											
		< TRANSIST	OR >			R5658 R5659	1-218-990-11 1-218-990-11	SHORT SHORT	0			
Q5605	8-729-037-52	TRANSISTO	B 2SD2216.I-	OR(K8) SO		R5660	1-218-990-11	SHORT	0			
Q5606	8-729-037-53					R5661	1-218-990-11	SHORT	0			
Q5607	8-729-037-52					R5669	1-218-990-11	SHORT	0			
Q5608	8-729-037-53			QR(K8).SO		DE070	4 040 000 44	CHODT	^			
△ Q5701	8-729-039-43	TRANSISTO	R FP216-IL			R5670 R5671	1-218-990-11 1-218-990-11	SHORT SHORT	0			
Q5702	8-729-042-59	TRANSISTO	R UN9112J-(I	K8).S0		R5674	1-218-990-11	SHORT	0			
QOTOL		77.0.101010		,		R5676	1-218-990-11	SHORT	0			
		< RESISTOR	l >			R5679	1-218-937-11	RES,CHIP		47	5%	1/16W
R5500	1-218-990-11	SHORT	0			R5680	1-218-937-11	RES,CHIP		47	5%	1/16W
R5501	1-218-972-11		39K	5%	1/16W	R5681	1-218-937-11	RES,CHIP		47	5%	1/16W
R5505	1-218-973-11		47K	5%	1/16W	R5685	1-218-973-11	RES,CHIP		47K	5%	1/16W
R5508	1-208-719-11 1-208-711-11		33K 15K	0.50% 0.50%	1/16W 1/16W	R5686 R5687	1-218-973-11 1-218-961-11	RES,CHIP RES,CHIP		47K 4.7K	5% 5%	1/16W 1/16W
R5509	1-200-711-11	neo,unir	10K	0.5078	1/1000	110007	1-210-301-11	neo,orm		7.710	370	171000
R5510	1-218-969-11	RES,CHIP	22K	5%	1/16W	R5688	1-216-864-11	METAL CHIP		0	5%	1/16W
R5511	1-218-966-11	RES,CHIP	12K	5%	1/16W	R5695	1-218-990-11	SHORT	0	001/	F0/	4 (4 0) (4
R5512	1-218-969-11		22K 12K	5% 5%	1/16W 1/16W	R5699 R5703	1-218-969-11 1-216-055-00	RES,CHIP METAL CHIP		22K 1.8K	5% 5%	1/16W 1/10W
R5513 R5514	1-218-966-11 1-218-965-11	RES,CHIP RES,CHIP	12K	5%	1/16W	R5704	1-216-055-00	METAL CHIP		1.8K	5%	1/10W
HOOTH	1-210-303-11	TILO, OTH	1010	070	171011	110701	1 210 000 00	WILL 17 12 01 111		11070	0,0	.,
R5515	1-218-972-11		39K	5%	1/16W	R5705	1-218-977-11	RES,CHIP		100K	5%	1/16W
R5516	1-218-969-11	RES,CHIP	22K	5%	1/16W	R5706	1-218-963-11	RES,CHIP		6.8K	5%	1/16W
R5517	1-218-967-11 1-218-971-11		15K 33K	5% 5%	1/16W 1/16W	R5707 R5708	1-218-969-11 1-218-942-11	RES,CHIP RES,CHIP		22K 120	5% 5%	1/16W 1/16W
R5518 R5520	1-218-984-11	RES,CHIP	390K	5%	1/16W	R5709	1-218-949-11	RES,CHIP		470	5%	1/16W
110020		,						,				
R5521	1-208-709-11		12K	0.50%	1/16W	R5710	1-218-990-11	SHORT	0			
R5522	1-208-721-11	RES,CHIP	39K	0.50%	1/16W	R5801	1-218-954-11	RES,CHIP RES,CHIP		1.2K 1.5K	5% 5%	1/16W 1/16W
R5528	1-218-977-11 1-218-990-11	RES,CHIP SHORT	100K 0	5%	1/16W	R5802 R5803	1-218-955-11 1-218-959-11	RES,CHIP		3.3K	5% 5%	1/16W
R5532 R5540	1-218-941-11	RES,CHIP	100	5%	1/16W	R5804	1-218-963-11	RES,CHIP		6.8K	5%	1/16W
1100-10	, 210 011 11			2								
R5541	1-218-941-11	RES,CHIP	100	5%	1/16W							
R5542 R5601	1-218-941-11 1-218-990-11	RES,CHIP SHORT	100 0	5%	1/16W	_			_			
R5603	1-218-990-11	SHORT	0				Note:	lalamilita il lic		lote :	onto Ida	ifiác nas
R5604	1-218-990-11	SHORT	0				The components mark △ or dotted			es compos ne marque		
										our la sécu		*******

Ne les remplacer que par une pièce portant le numéro spécifié.

					RI-10 S	E-75	VC	-208
Ref. No.	Part No.	<u>Description</u> <u>Remarks</u>	Ref. No.	Part No.	Description			Remarks
R5805	1-218-965-11	RES,CHIP 10K 5% 1/16W	C212	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
R5807	1-218-990-11	SHORT 0	C213	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
			C214	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< TRANSFORMER >	C215	1-125-777-11		0.1 uF	10%	10V
△ T5701	1-431-754-21	TRANSFORMER, INVERTER	C217	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
ZZ 13701	1-401-704-21	THATO, OTHER, INVESTIGATION	C218	1-107-820-11	CERAMIC CHIP	0.1uF		16V
			C219	1-125-777-11		0.1uF	10%	10V
	A-7073-735-A	RI-10(D) BOARD, COMPLETE	C220	1-125-777-11		0.1uF	10%	10V
		*********	C221	1-125-777-11		0.1uF	10%	10V
		(Ref.No.:10,000 Series)	C222	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
*	3-052-742-01	HOLDER, LED	C227	1-115-156-11	CERAMIC CHIP	1uF		10V
	3-977-676-01	HOLDER, LED	C228	1-164-850-11		10PF	0.5PF	16V
			C229	1-164-937-11		0.001uF	10%	16V
		< CONNECTOR >	C230	1-164-937-11		0.001uF	10%	16V
017401	1-750-333-11	CONNECTOR, FFC/FPC (ZIF) 6P	C231	1-164-846-11	CERAMIC CHIP	6PF	0.5PF	16V
GN/401	1-/50-555-11	COMMECTOR, ITO/ITO (Zii) oi	C232	1-107-820-11	CERAMIC CHIP	0.1uF		16V
		< DIODE >	C233	1-135-201-11		10uF	20%	4V
		(Blobe)	C234	1-104-847-11		22uF	20%	4V
D7401	8-719-404-49	DIODE MA111-TX	C235	1-107-820-11		0.1uF		16V
57 .0.			C236	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
•		< IC >	C237	1-115-156-11	CERAMIC CHIP	1uF		10V
107401	8-749-013-13	IC RS-70-TU	C238	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
107401	7 10 010 10	the Late ground rate, that Leight is executed a second of a suggest of the late.	C239	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
			C240	1-164-346-11	CERAMIC CHIP	1uF		16V
	A-7073-675-A	SE-75 BOARD, COMPLETE	C247	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		(Ref.No.:10,000 Series)	C248	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		(101110010)	C249	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		< CAPACITOR >	C250	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
			C252	1-115-156-11		1uF		10V
C450	1-164-360-11	CERAMIC CHIP 0.1uF 16V	C253	1-115-156-11	CERAMIC CHIP	1uF		10V
C451	1-135-201-11	TANTALUM CHIP 10uF 20% 4V						4014
			C254	1-115-156-11		1uF	000/	10V
		< CONNECTOR >	C255	1-135-201-11			20% 20%	4V 4V
		COMMENTAR FEOURDS CR	C256 C257	1-135-201-11 1-135-201-11			20%	4V 4V
CN450	1-774-631-21	CONNECTOR, FFC/FPC 6P	C257	1-135-201-11			20%	4V
		<coil></coil>	0230	1-100-201-11				
			C259	1-135-201-11			20%	4V
L450	1-414-754-11	INDUCTOR 10uH	C260	1-135-201-11			20%	4V
			C262	1-104-852-11		22uF	20%	10V
		< SENSOR >	C300	1-107-820-11		0.1uF 0.1uF		16V 16V
05.450	4 000 040 24	SENSOR, ANGULAR VELOCITY (YAW)	C301	1-107-820-11	CERAMIC CHIP	U.Tur .		100
SE450 SE451	1-803-042-31 1-803-042-41		C302	1-107-820-11	CERAMIC CHIP	0.1uF		16V
		OLINOOT, ANGOLATI VELOOTT (Trott)	C303	1-135-201-11			20%	4V
			C305	1-125-777-11		0.1uF	10%	10V
	A-7093-974-A	VC-208 BOARD, COMPLETE	C306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		********	C307	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(Ref.No.:10,000 Series)					0001	4) /
			C308	1-104-847-11		22uF	20%	4V
		< CAPACITOR >	C309	1-107-820-11		0.1uF		16V
			C310	1-107-820-11		0.1uF	109/	16V 16V
C201	1-107-682-11		C311	1-164-943-11		0.01uF 0.33uF	10% 10%	16V 16V
C202	1-107-682-11		C351	1-110-501-11	CERAMIC CHIP	บ.บบนา	10/0	100
C203	1-107-682-11	CERAMIC CHIP 1 10% 16V CERAMIC CHIP 1 10F 10% 16V	C353	4 407 705 44	CERAMIC CHIP	0.1uF	10%	16V

Note:	
The components	id
mark A or dotted I	in

dentified by Th line with mark mark A or do △ are critical for safety. Replace only with part number specified.

1-107-725-11 CERAMIC CHIP

1-110-501-11 CERAMIC CHIP

1-107-725-11 CERAMIC CHIP

1-135-259-11 TANTAL, CHIP

1-162-958-11 CERAMIC CHIP

Note: Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une

pièce portant le numéro spécifié.

10%

10%

20%

5%

16V

16V

6.3V

50V

0.1uF

0.33uF

0.1uF

10uF

270PF

C353

C354

C355

C357

C358

1-107-682-11 CERAMIC CHIP

1-107-682-11 CERAMIC CHIP

1-107-682-11 CERAMIC CHIP

1-125-777-11 CERAMIC CHIP

1-125-777-11 CERAMIC CHIP

1-109-982-11 CERAMIC CHIP

CERAMIC CHIP

1-125-777-11

C204

C205

C206

C207

C208

C209

C211

1uF

1uF

1uF

0.1uF

0.1uF

0.1uF

1uF

10%

10%

10%

10%

10%

10%

10%

16V

16V

16V

10V

10V

10V

10V

Def No	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
Ref. No.			07000	E0/					0.4		
C359	1-162-958-11	CERAMIC CHIP	270PF	5% 10%	50V 16V	C705 C721	1-107-820-11 1-164-935-11	CERAMIC CHIP	0.1uF 470PF	400/	16V 16V
C360	1-164-942-11 1-164-942-11	CERAMIC CHIP	0.0068uF 0.0068uF	10%	16V	C721	1-164-935-11	CERAMIC CHIP	470PF 470PF	10% 10%	16V
C361 C368	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C723	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C370	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V	C724	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C371	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C725	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C372	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C726	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C373		CERAMIC CHIP	0.047uF	10%	16V	C727	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C374	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	* C728	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C375	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V	C729	1-218-990-11	SHORT 0			
C376	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V	C730	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C377	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V	C731	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C379	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C732	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C400	1-104-847-11	TANTAL. CHIP	22uF	20%	4V	C733	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C401	1-104-847-11	TANTAL. CHIP	22uF	20%	4V	C734	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C402	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	C735	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C402	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	C736	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C404	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C738	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C405	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C740	1-104-851-11	TANTAL, CHIP	10uF	20%	10V
C406	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C742	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
0400	1 107 010 11	GET WITH ON THE	0.02241	1070	101	07.12	7 100 200 71		Tour	2070	0.01
C407	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C743	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C408	1-104-908-11	TANTAL. CHIP	47uF	20%	4V	C751	1-107-820-11	CERAMIC CHIP	0.1 uF		16V
C409	1-104-908-11	TANTAL. CHIP	47uF	20%	4V	C752	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C410	1-104-908-11	TANTAL. CHIP	47uF	20%	4V	C753	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
C411	1-104-908-11	TANTAL. CHIP	47uF	20%	4V	C754	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C414	1-135-201-11	TANTALUM CHIP	10uF	20%	4V	C755	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C415	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C756	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C500	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C757	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C501	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V	C758	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C502	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C759	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C503	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C760	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C504	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C761	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C505	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C762	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C506	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V	C763	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C507	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	C764	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	4 404 040 44	OFFIAMIO OLUF	0.01	100/	40)(0765	4 407 000 44	CEDAMIC CUID	0.1		101/
C508	1-164-943-11	CERAMIC CHIP	0.01uF 0.47uF	10%	16V 16V	C765 C766	1-107-820-11 1-135-259-11	CERAMIC CHIP TANTAL, CHIP	0.1uF 10uF	20%	16V 6.3V
C509	1-107-823-11	CERAMIC CHIP CERAMIC CHIP	0.47uF	10%	16V	C767		CERAMIC CHIP	0.1uF	2070	16V
C510 C511	1-164-943-11		0.001uF	10%	16V	C768	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C512	1-164-939-11		0.0022uF	10%	16V	C770	1-107-820-11		0.1uF	2070	16V
0312	1 104 303 11	OLIDAMIO OTIM	O.OOLLU1	1070			1 107 020 11	02.11.11.10 0.11.1	0.14		101
C514	1-115-156-11		1uF		10V	C771		TANTAL. CHIP	10uF	20%	6.3V
C515	1-104-847-11	TANTAL. CHIP	22uF	20%	4V	C772	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C516	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C1200	1-164-943-11		0.01uF	10%	16V
C517	1-104-752-11	TANTAL. CHIP	33uF	20%	6.3V	C1201	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C518	1-115-156-11	CERAMIC CHIP	1uF		10V	C1202	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C519	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C1203	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C520	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V	C1204	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C521	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C1205	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C522	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C1206	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C523	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V	C1207	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C524	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V	C1208	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C524	1-107-823-11		0.47uF	10%	16V	C1209	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C526	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V	C1210	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C527	1-164-943-11		0.01uF	10%	16V	C1211	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C528	1-164-939-11		0.0022uF	10%	16V	C1212	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
0500	4 445 450 44	CEDAMIC CUID	1115		10)/	01010	1-164-049-14	CEDAMIC CUID	0.01.45	100/	161/
C530	1-115-156-11	CERAMIC CHIP TANTAL, CHIP	1uF 22uF	20%	10V 4V	C1213 C1214	1-164-943-11 1-164-943-11	CERAMIC CHIP	0.01uF 0.01uF	10% 10%	16V 16V
C531	1-104-847-11 1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V	C1214	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C701 C702	1-107-820-11		0.1uF	20/0	16V	C1216	1-104-937-11	CERAMIC CHIP	0.001uF	10%	10V
C702	1-107-820-11	TANTAL. CHIP	10uF	20%	10V	C1217	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
0100	1 104 001-11	WHITE OIL	, 0 41	_0 /0	, , ,	J 1 to 1 f	0101011	Carring Olli	3.5 Tui	. 5 / 0	

Ref. No.	Part No.	<u>Description</u>			Remarks	Ref. No.	Part No.	Description	Remarks
C1218	-	CERAMIC CHIP	0.01uF	10%	16V	IC351	8-759-359-49	IC NJM3414AV(TE2)	
C1219	1-135-259-11		10uF	20%	6.3V	IC352	8-759-359-49	IC NJM3414AV(TE2)	
C1220	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	IC354	8-759-058-45	IC NJM3403AV(TE2)	
C1221	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	IC355	8-759-050-51	IC SN74HCT04APW-E20	
C1222		CERAMIC CHIP	0.01uF	10%	16V	IC356	8-759-058-45	IC NJM3403AV(TE2)	
C1223	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	IC357	8-759-075-66	IC TA75S01F(TE85R)	
C1224	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	IC400	8-759 - 489-19	IC uPC6756GR-8JG-E2	
C1225	1-164-842-11	CERAMIC CHIP	2PF	0.25PF		IC500	8-759-492-31	IC MPC17A134VMEL	
C1226	1-164-854-11	CERAMIC CHIP	15PF	5%	16V	1C501	8-759-444-87	IC NJM324V(TE2)	
C1227	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	IC502	8-759-444-87	IC NJM324V(TE2)	
C1228	1-164-850-11		18PF	5%	16V	IC701	8-759-540-05	IC HG71C112TE	
C1229	1-164-850-11	CERAMIC CHIP	18PF	5%	16V	IC721	8-759-492-30		
C1230		CERAMIC CHIP	0.01uF	10%	16V	10722		IC MB3817PFV-G-BND IC HD6437042AP10XSZ	
C1231 C1232	1-125-777-11 1-125-777-11	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.1uF	10% 10%	10V 10V	IC751 IC752	8-759-567-99 8-759-543-83	IC KM416V1204CT-L6T	
C1233		CERAMIC CHIP	0.1uF	10%	10V	IC753	8-759-234-20 8-759-327-60	IC TC7S08F(TE85R) IC TC7W125FU-TE12R	
C1234	1-164-874-11		100PF	5%	16V 16V	IC754	8-759-327 - 60 8-759-196-96		
C1235	1-164-943-11	CERAMIC CHIP	0.01uF	10%	101	IC755	8-752-395-96		
		< CONNECTOR >				IC757		IC RL5V834/E2H	
ONICCO	4 705 400 04			10 BD 40 D)	IC758	8-750-400-07	IC MB81V4260S-70LPFTN-G-ER	
CN200	1-785-432-21 1-691-346-11			AND 40P		IC750	8-759-547 - 46		
CN351 CN400	1-691-346-11					IC760	8-759-445-93		
CN400	1-766-687-21					IC1200			
CN900	1-779-518-41			OARD 100	P				
		< DIODE >						< COIL >	
•. •						L200	1-414-754-11		
D204	8-713-103-84					L201		INDUCTOR 10uH	
D500	8-719-056-23					L300		INDUCTOR 10uH	
D501	8-719-056-23					L301 L351	1-414-754-11 1-414-754-11		
D721 D722	8-719-066-16 8-719-066-34					Looi	1-414"/04"		
J122	3 3 3 3 3 4					L352	1-412-963-11		
D723	8-719-056-48					L400	1-414-754-11		
D724		DIODE 1SS388				L500	1-414-754-11		
D1200	8-719-071-32					L501 L503	1-414-754-11 1-414-754-11		
D1201	8-719-071-32	DIODE HVC350	אאוסו			LOUS	1-414-104-11		
		< FERRITE BEAD) >			L721	1-416-344-11		
-		EEDDITE OU	ш			L722 L723	1-416-344-11 1-416-345 - 11		
FB200	1-414-445-11 1-469-311-22					L723	1-416-345-11		
FB201 FB202	1-469-311-22					L724	1-414-396-21		
FB202	1-414-445-11					2.20			
FB204	1-414-445-11					L726	1-216-296-91		
-		• •				L727		INDUCTOR 4.7uH	
FB300	1-414-445-11				,	L751		INDUCTOR 10uH	
FB301	1-414-445-11				•	L752	1-414-754-11		
FB501 FB752	1-414-445-11 1-543-955-22					L754	1-414-754-11	וועטטטוסת וטעוו	
FB752	1-543-955-22					L1200	1-414-754-11		
10104						L1201	1-414-754-11	INDUCTOR 10uH	
		< IC >				L1202		INDUCTOR 1.8uH	
		10 01/10:5==	r.4			L1203		INDUCTOR 33uH	
10203	8-752-083-11					L1204	1-412-957-11	INDUCTOR 33uH	
IC204 IC205	8-752-393-81 8-759-561-39					L1205	1-414-754-11	INDUCTOR 10uH	
IC205	8-759-561-39						,		
IC207	8-759-561-39		(< TRANSISTOR >	
IC208	8-759-387-31	IC TC75S55F(T	E85R)			Q200	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
IC300	8-752-397-00		,			Q201		TRANSISTOR UN9111J-(K8).SO	
IC301	8-759-445-93					Q301		TRANSISTOR UN9211J-(K8).SO	50
1C302	8-752-897-32			mb.		Q351	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8). TRANSISTOR UN9213J-(K8).SO	.50
IC305	8-759-426-25	IC MB88346LP	rv-G-BND-l	EM		Q352	0-129-031-14	HAMOIOTOR UNDERTOU-(NO).50	

_		D 147	Di-ti			Damanda	I Def No	David No.	Description				Damarka
<u>R</u>	ef. No.	Part No.	<u>Description</u>			<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>				Remarks
	Q353	8-729-037-76					R302	1-218-953-11	RES,CHIP		1K	5%	1/16W
	Q354	8-729-013-31					R303	1-218-973-11	RES,CHIP		47K	5%	1 /16W
	Q500	8-729-037-53					R304	1-218-977-11			100K	5%	1/16W
	Q501	8-729-037-52					R305	1-218-953-11	,		1K	5%	1/16W
	Q502	8-729-037-52	TRANSISTOR	2SD22	16J-QR(K8).SC		R306	1-218-977-11	RES,CHIP		100K	5%	1/16W
	Q503	8-729-037-52	TRANSISTOR	2SD22	16J-QR(K8).SC		R307	1-218-977-11	RES.CHIP		100K	5%	1/16W
	Q504	8-729-037-52					R308	1-218-977-11			100K	5%	1/16W
	Q505	8-729-037-53					R309	1-218-953-11			1K	5%	1/16W
	Q701	8-729-046-00					R311	1-218-989-11			1M	5%	1/16W
	Q702	8-729-037-74					R314	1-218-957-11	,		2.2K	5%	1/16W
	0701	8-729-043-94	TRANSISTOR	CDU24	OC DM TI		D216	1-218-961-11	DEC CUID		4.7K	5%	1/16W
	Q721	8-729-043-94					R316 R317	1-218-961-11			4.7K	5%	1/16W
	Q722	8-729-024-48					R318	1-218-977-11			100K	5%	1/16W
	Q727	8-729-037-74					R320	1-218-957-11			2.2K	5%	1/16W
	Q751 Q752		TRANSISTOR				R325	1-218-973-11			47K	5%	1/16W
	Q753	8-729-037-74 8-729-037-61					R326 R327	1-218-973-11 1-218-953-11			47K 1K	5% 5%	1/16W 1/16W
	Q754	8-729-807-86			` '		R328	1-218-953-11			1K	5%	1/16W
	Q1200	8-729-007-00					R329	1-218-977-11			100K	5%	1/16W
	Q1201												
	Q1202	8-729-037-52	TRANSISTOR	25022	101-0H(K8).5C		R330	1-218-977-11	RES,UNIP		100K	5%	1/16W
	Q1203	8-729-037-52	TRANSISTOR	2SD22	16J-QR(K8).SC		R331	1-218-977-11			100K	5%	1/16W
	Q1204	8-729-037-52	TRANSISTOR	2SD22	16J-QR(K8).SC		R332	1-218-989-11	RES,CHIP		1M	5%	1/16W
	Q1205	8-729-037-52	TRANSISTOR	2SD22	16J-QR(K8).SC		R333	1-218-989-11	RES,CHIP		1M	5%	1/16W
	Q1206	8-729-037-53					R334	1-218-953-11	•		1K	5%	1/16W
	Q1207	8-729-037-53	TRANSISTOR	2SB14	62J-QR(K8).SC		R336	1-218-990-11	SHORT	0			
	Q1208	8-729-037-76	TRANSISTOR	UN921	5J-(K8).S0		R353	1-208-675-11	RES,CHIP		470	0.50%	1/16W
	Q1209	8-729-807-86					R354	1-208-927-11			47K		1/16W
	4.200	0 . = 0 00. 00	,				R355	1-208-713-11			18K		1/16W
			< RESISTOR >				R357	1-208-719-11			33K		1/16W
			, , , , , , , , , , , , , , , , , , , ,				R358	1-218-985-11	•		470K		1/16W
	R200	1-218-977-11	RES,CHIP	100	K 5%	1/16W			,				
	R201	1-218-935-11		33	5%	1/16W	R359	1-208-719-11	RES.CHIP		33K	0.50%	1/16W
	R202	1-218-985-11		470		1/16W	R360	1-208-927-11	RES.CHIP		47K		1/16W
	R203	1-218-934-11		27	5%	1/16W	R361	1-208-683-11	RES,CHIP		1K		1/16W
	R204	1-218-935-11		33	5%	1/16W	R362	1-208-719-11			33K		1/16W
		, _,,	,				R363	1-208-715-11			22K		1/16W
	R205	1-218-935-11		33	5%	1/16W	2004		D=0 01115				4.4.0141
	R207	1-218-990-11		0			R364	1-208-719-11			33K		1/16W
	R208	1-218-990-11		0			R365	1-208-927-11			47K		1/16W
	R209	1-218-990-11		0			R366	1-208-683-11			1K		1/16W
	R210	1-218-990-11	SHORT	0			R367	1-218-977-11			100K	5%	1/16W
	R211	1-218-990-11	SHORT	0			R368	1-218-979-11	RES,CHIP		150K	5%	1/16W
	R212	1-218-990-11		0			R369	1-218-977-11	RES CHIP		100K	5%	1/16W
	R213	1-218-989-11		1M	5%	1/16W	R370	1-218-979-11	RES,CHIP		150K	5%	1/16W
	R214	1-218-989-11		1M		1/16W	R371	1-208-927-11			47K	0.50%	1/16W
	R215	1-218-989-11		1M		1/16W	R372	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
	NZIJ	1-210-303-11	1120,01111	1101	. 070	17 1000	R373	1-218-977-11			100K	5%	1/16W
	R216	1-218-957-11	RES,CHIP	2.2	< 5%	1/16W	1.010	. 210 017 11	1120,01111		10011	0 70	
	R217	1-208-712-11	RES,CHIP	16K		1/16W	R374	1-208-939-11	RES,CHIP		150K	0.50%	1/16W
	R218	1-208-683-11	RES,CHIP	1K		1/16W	R375	1-208-939-11	RES,CHIP		150K	0.50%	1/16W
	R220	1-208-947-11		330		1/16W	R376	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R221	1-218-985-11		470		1/16W	R377	1-208-715-11	RES,CHIP		22K	0.50%	1/16W
							R378	1-208-715-11	•		22K		1/16W
	R222	1-208-713-11		18K		1/16W							
	R223	1-208-713-11		18K		1/16W	R379	1-208-707-11	RES,CHIP		10K	0.50%	1/16W
	R224	1-208-713-11		18K		1/16W	R380	1-208-707-11	RES,CHIP		10K	0.50%	1/16W
	R225	1-208-713-11	RES,CHIP	18K		1/16W	R381	1-218-975-11	RES,CHIP		68K	5%	1/16W
	R226	1-208-713-11	RES,CHIP	18K	0.50%	1/16W	R382	1-218-975-11	RES,CHIP		68K	5%	1/16W
	D007	1 000 740 44	DEC CHID	4.01/	0.500/	4 /4 @\AJ	R383	1-218-975-11	RES,CHIP		68K	5%	1/16W
	R227 R236	1-208-713-11 1-218-990-11	•	18K	0.50%	1/16W	R384	1-218-975-11	RES,CHIP		68K	5%	1/16W
	R237	1-218-965-11		, 10K	5%	1/16W	R385	1-218-975-11	RES,CHIP		68K	5%	1/16W
	R300	1-218-977-11		100		1/16W	R386	1-218-975-11			68K	5%	1/16W
	R301	1-218-973-11		47K		1/16W	R387	1-218-953-11			1K	5%	1/16W
	11001	1 6 10 010 11	TILO,OTHI	711	0 70	., 1044	R388	1-218-973-11	,		47K	5%	1/16W
							11000	. 2.0 0/0 //	. 120,01111			5 70	.,

_		Don't Ma	Description				Remarks	Ref. No.	Part No.	Description				Remarks
<u>R</u>	<u>ef. No.</u>	Part No.	Description									45.0	= 0/ '	
	R389	1-218-953-11			1K	5%	1/16W	R701	1-218-989-11	RES,CHIP		1M	5%	1/16W
	R390	1-218-965-11			10K	5%	1/16W	R702	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R391				470K	0.50%	1/16W	R703	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R392	1-208-715-11			22K	0.50%	1/16W	R704	1-216-295-91	SHORT	0	4.71/	E0/	1/16W
	R393	1-208-931-11	RES,CHIP		68K	0.50%	1/16W	R705	1-218-961-11	RES,CHIP		4.7K	5%	1/1000
	R394	1-208-935-11	RES CHIP		100K	0.50%	1/16W	R721	1-218-937-11	RES,CHIP		47	5%	1/16W
	R395	1-208-931-11			68K	0.50%	1/16W	R722	1-218-943-11	RES,CHIP		150	5%	1/16W
	R396	1-208-935-11			100K	0.50%	1/16W	R723	1-218-965-11	RES.CHIP		10K	5%	1/16W
	R400	1-218-969-11			22K	5%	1/16W	R724	1-218-965-11	RES.CHIP		10K	5%	1/16W
	R400	1-218-969-11			22K	5%	1/16W	R725	1-218-967-11	,		15K	5%	1/16W
	11401	1 210 000 11	1120,01111			•								
	R402	1-218-969-11			22K	5%	1/16W	R727	1-218-967-11	RES,CHIP		15K	5%	1/16W
	R403	1-218-969-11	RES,CHIP		22K	5%	1/16W	R728	1-208-715-11	RES,CHIP		22K	0.50%	1/16W
	R404	1-218-965-11			10K	5%	1/16W	R729	1-208-719-11	RES,CHIP		33K	0.50%	1/16W
	R405	1-218-965-11	RES,CHIP		10K	5%	1/16W	R730	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
	R406	1-218-989-11	RES,CHIP		1M	5%	1/16W	R731	1-208-697-11	RES,CHIP		3.9K	0.50%	1/16W
	D 400	1-218-989-11	RES,CHIP		1M	5%	1/16W	R732	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
	R409	1-218-975-11			68K	5%	1/16W		1-208-927-11			47K	0.50%	1/16W
	R500		•		4.7K	5%	1/16W	R740	1-218-990-11	SHORT	0		0.0070	.,
	R501	1-218-961-11	. ,	0	4.//	J /0	1/1000	R741	1-208-927-11		U	47K	0.50%	1/16W
	R502	1-216-295-91	SHORT	U	001/	E0/	1/16W	R742	1-218-977-11			100K	5%	1/16W
	R503	1-218-975-11	RES,CHIP		68K	5%	1/1044	N/42	1-210-911-11	NEO,OIIII		TOOK	3 70	1/1000
	R505	1-218-953-11	RES,CHIP		1K	5%	1/16W	R743	1-218-989-11	RES,CHIP		1M ·	5%	1/16W
	R506	1-218-989-11	RES,CHIP		1M	5%	1/16W	R744	1-218-977-11			100K	5%	1/16W
	R507	1-218-957-11	RES,CHIP		2.2K	5%	1/16W	R745	1-218-990-11	SHORT	0			
	R508	1-218-965-11	RES,CHIP		10K	5%	1/16W	R751	1-218-977-11			100K	5%	1/16W
	R509	1-218-981-11	RES,CHIP		220K	5%	1/16W	R754	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R510	1-218-985-11	RES,CHIP		470K	5%	1/16W	R755	1-218-977-11	RES.CHIP		100K	5%	1/16W
	R511	1-218-985-11			470K	5%	1/16W	R756	1-218-958-11	RES, CHIP		2.7K	5%	1/16W
	R512	1-218-957-11			2.2K	5%	1/16W	R757	1-218-946-11			270	5%	1/16W
	R513	1-218-967-11			15K	5%	1/16W	R758	1-218-944-11			180	5%	1/16W
	R514	1-218-969-11	RES,CHIP		22K	5%	1/16W	R759	1-218-932-11	RES, CHIP		18	5%	1/16W
	11017	1 210 505 11	1120,01111		LLIC	0,0		1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	R515	1-218-985-11	RES,CHIP		470K	5%	1/16W	R760	1-218-990-11		0			
	R516	1-218-953-11	RES,CHIP		1K	5%	1/16W	R761	1-218-990-11		0			
	R517	1-218-953-11	RES,CHIP		1K	5%	1/16W	R763	1-218-973-11			47K	5%	1/16W
:	R518	1-218-947-11	RES,CHIP		330	5%	1/16W	R764	1-218-973-11			47K	5%	1/16W
	R519	1-218-969-11	RES,CHIP		22K	5%	1/16W	R765	1-218-977 - 11	RES,CHIP		100K	5%	1/16W
	R520	1-218-953-11	RES CHIP		1K	5%	1/16W	R766	1-218-977-11	RES.CHIP		100K	5%	1/16W
	R521	1-218-965-11			10K	5%	1/16W	R767	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R522	1-218-973-11			47K	5%	1/16W	R768	1-218-977-11			100K	5%	1/16W
	R523	1-216-295-91	•	0				R769	1-218-977-11	RES, CHIP		100K	5%	1/16W
	R525	1-218-953-11		•	1K	5%	1/16W	R770	1-218-977-11			100K	5%	1/16W
	TIOLO	1 2 10 000 11												
	R526	1-218-989-11			1M	5%	1/16W	R771	1-218-977-11			100K	5%	1/16W
	R527	1-218-957-11			2.2K	5%	1/16W	R772	1-218-977-11			100K	5%	1/16W
	R528	1-218-965-11			10K	5%	1/16W	R773	1-218-977-11			100K	5%	1/16W
	R529	1-218-981-11			220K	5%	1/16W	R774	1-218-977-11			100K	5%	1/16W
	R530	1-218-985-11	RES,CHIP		470K	5%	1/16W	R775	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R531	1-218-985-11	RES,CHIP		470K	5%	1/16W	R776	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R532	1-218-957-11	•		2.2K	5%	1/16W	R777	1-218-977-11			100K	5%	1/16W
	R533	1-218-967-11	•		15K	5%	1/16W	R778	1-218-977-11	RES, CHIP		100K	5%	1/16W
	R534	1-218-969-11			22K	5%	1/16W	R779	1-218-977-11			100K	5%	1/16W
	R535	1-218-985-11			470K	5%	1/16W	R780	1-218-977-11	RES,CHIP		100K	5%	1/16W
	DECC	1 010 050 11	DEC OUID		11/	5%	1/16W	R781	1-218-977-11	BEC UNID		100K	5%	1/16W
	R536	1-218-953-11			1K 1K	5% 5%	1/16W	R782	1-218-977-11			100K	5%	1/16W
	R537	1-218-953-11			330	5%	1/16W	R783	1-218-977-11			100K	5%	1/16W
	R538	1-218-947-11			22K	5%	1/16W	R784	1-218-977-11			100K	5%	1/16W
	R539	1-218-969-11			22K 1K	5% 5%	1/16W	R785	1-218-977-11			100K	5%	1/16W
	R540	1-218-953-11	I ILO,UMIF		IIX	J /0	1, 10 00	11700	1 510-011-11	rico,orm .		10011	5 / 0	., , , , , ,
	R541	1-218-965-11	RES,CHIP		10K	5%	1/16W	R786	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R542	1-218-973-11	•		47K	5%	1/16W	R787	1-218-977-11			100K	5%	1/16W
	R543	1-218-973-11	•		47K	5%	1/16W	R788	1-218-990-11		0			
	R544	1-218-990-11	•	0				R789	1-218-965-11			10K	5%	1/16W
	R545	1-218-961-11	RES,CHIP		4.7K	5%	1/16W	R790	1-218-965-11	RES,CHIP		10K	5%	1/16W

VC-208 VF-121

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			<u>Remarks</u>
R791	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5006	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R792	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5007	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R793	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5008	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R794	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5009	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R795	1-107-820-11	CERAMIC CHIP	0.1MF		16V	C5010	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
						05044		05511410 01115	0.04 5	400/	401
R800	1-218-990-11	SHORT 0				C5011	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R801	1-218-990-11	SHORT 0				C5012	1-164-505-11	CERAMIC CHIP	2.2uF	400/	16V
R802	1-218-990-11	SHORT 0				C5013	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
R804	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5015	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R806	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5016	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R807	1-218-990-11	SHORT 0				C5017	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
R808	1-218-990-11	SHORT 0				C5018	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
R809	1-216-809-11	METAL CHIP	100	5%	1/16W	C5019	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
R810	1-218-990-11	SHORT 0				C5020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
R920	1-218-990-11	SHORT 0				C5101	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
		CIUD	1001/	5 0/	4 (4 (0) 1)	05400	1 101 010 11	0554440 01115	0.04.:5	400/	40)1
R1202	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5102	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R1203	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5103	1-104-851-11	TANTAL, CHIP	10uF	20%	10V
R1204	1-218-973-11	RES,CHIP	47K	5%	1/16W	C5104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R1205	1-218-950-11	RES,CHIP	560	5%	1/16W	C5105	1-104-916-11	TANTAL. CHIP	6.8uF	20%	20V
R1206	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5106	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
R1207	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5108	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R1208	1-218-959-11	RES,CHIP	3.3K	5%	1/16W	C5109	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
R1200	1-218-979-11	RES,CHIP	150K	5%	1/16W	C5110	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
R1210	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5111	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5112	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
R1211	1-210-303-11	1120,01111	TOIC	0 70	171011	00112	1 100 002 11	ocasioni o orni	Tui	1070	101
R1212	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5113	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
R1213	1-218-957-11	RES,CHIP	2.2K	5%	1/16W	C5114	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
R1214	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5115	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
R1215	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R1216	1-218-959-11	RES,CHIP	3.3K	5%	1/16W	C5117	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
D4047	1-218-952-11	RES,CHIP	820	5%	1/16W	C5118	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
R1217		RES,CHIP	10K	5%	1/16W	C5119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R1218	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5120	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
R1219	1-218-965-11	METAL CHIP	0	5%	1/16W	C5121	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R1266	1-216-864-11	RES,CHIP	10K	5%	1/16W	C5122	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
R1267	1-218-965-11	NES,OTH	TOIC	J /0	171044	03122	1-104 340-71	OLITAWIO OITI	0.005501	1070	100
R1268	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R1269	1-218-941-11	RES,CHIP	100	5%	1/16W						
R1270	1-218-989-11		1M	5%	1/16W			< CONNECTOR >			
R1271	1-218-977-11	RES,CHIP	100K	5%	1/16W	CNEOO	1 704 400 11	CONNECTOR FEC	VEDO (715)	04 D	
		< VIBRATOR >					1-784-420-11 1-778-596-21	CONNECTOR, FFC			
		Z VIBINITOTE >				0,10,10,1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	001111207011, 207			
X200	1-767-586-21	VIBRATOR, CRYS						< DIODE >			
X300	1-767-450-11	VIBRATOR, CERA									
X751	1-781-069-21	VIBRATOR, LITHII			MHz)	D5101	8-719-043-70	DIODE MA6S121			
X1200	1-781-068-21	VIBRATOR, CRYS	STAL (40.5)	√lHz)		D5102	8-713-102-80	DIODE 1T369-01	I-T8A		
and the state of	magnesia mana amanan	and the second s	and the	ide ne fri de sacr	Section 2019			< IC >			
	A-7073-682-A	VF-121 BOARD, (COMPLETE					(10)			
	,,,,,,,	******				IC5001		IC CXA8115AR-7			
=			(Re	f.No.:10,0	000 Series)	105002	8-759-364-05	IC M62376GP-6	5AD		
						IC5002	8-759-530-19	IC MB40D001PF	V-G-BND-E	R	
		< CAPACITOR >				IC5101	8-759-097-75	IC MB3789PFV-0	G-BND-ER		
						IC5102	8-752-392-33	IC CXD2458AR-1	Γ4		
C5001	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V						
C5002	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V			< COIL >			
C5003	1-135-179-21	TANTAL, CHIP	2.2uF	20%	16V						
C5004	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	L5001	1-414-754-11	INDUCTOR 10uH			
C5005	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	L5002	1-414-754-11	INDUCTOR 10uH			
						L5101	1-412-033-11	INDUCTOR CHIP	220uH		
						L5102	1-414-756-11	INDUCTOR 47uH			
						L5103	1-412-947-11	INDUCTOR 4.7uH			

		•							<u> </u>			
Ref. No.	Part No.	Description				Remarks	Ref. No.	Part No.	Description			Remarks
		< TRANSISTO	R >						VI-151(D) BOARD VI-151(D) BOARD			
Q5101	8-729-013-72	TRANSISTOR	R	N2105-TE85	īL				******			,
Q5102 Q5103	8-729-037-61 8-729-037-74	TRANSISTOR TRANSISTOR								(Ref	.No.:10,0	00 Series)
Q3103	0-725 001 14			,	,.00				< CAPACITOR >			
		< RESISTOR :	>				C1400	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5001	1-218-990-11	SHORT	0				C1401	1-109-994-11	CERAMIC CHIP	2.2uF	10%	10V
R5003	1-218-990-11	SHORT	0				C1402	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5005	1-218-971-11	RES,CHIP		33K	5%	1/16W	C1403	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5008	1-218-969-11	RES,CHIP	_	22K	5%	1/16W	C1404	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
R5016	1-218-990-11	SHORT	0				C1405	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5018	1-218-990-11	SHORT	0				C1409	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
R5020	1-218-975-11	RES,CHIP	•	68K	5%	1/16W	C1418	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
R5021	1-218-971-11			33K	5%	1/16W	C1422	1-135-149-21	TANTALUM CHIP		20%	10V
R5022	1-218-985-11			470K	5%	1/16W	C1423	1-125-899-11	TANTAL. CHIP	220uF	20%	4V
R5023	1-218-972-11	RES,CHIP		39K	5%	1/16W	01422	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
DE004	1-218-972-11	RES,CHIP		39K	5%	1/16W	C1433 C1434	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R5024 R5025	1-218-975-11	•		68K	5%	1/16W	C1436	1-135-149-21	TANTALUM CHIP		20%	10V
R5026	1-218-971-11			33K	5%	1/16W	C1438	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5027	1-218-973-11			47K	5%	1/16W	C1439	1-125-899-11	TANTAL. CHIP	220uF	20%	4V
R5028	1-218-972-11	RES,CHIP		39K	5%	1/16W						
							C1449	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5029	1-218-990-11	SHORT	0	400	F 0/	4 /4 (2) (/	C1450	1-104-851-11	TANTAL. CHIP CERAMIC CHIP	10uF 0.01uF	20% 10%	10V 16V
R5030	1-218-941-11 1-218-941-11	RES,CHIP RES,CHIP		100 100	5% 5%	1/16W 1/16W	C1451 C1452	1-164-943-11 1-164-858-11	CERAMIC CHIP	22PF	5%	16V
R5031 R5035	1-218-941-11	RES, CHIP		100	5%	1/16W	C1503	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5038	1-218-990-11	SHORT	0	100	• , ,							
							C1505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5039	1-218-990-11		0				C1506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5040	1-216-861-11			2.2M	5%	1/16W	C1507	1-164-943-11	CERAMIC CHIP	0.01uF	10% 20%	16V 4V
R5041	1-216-839-11 1-218-990-11		0	33K	5%	1/16W	C1512 C1513	1-104-847-11 1-109-982-11	TANTAL. CHIP CERAMIC CHIP	22uF 1uF	10%	4 V 1.0 V
R5043 R5045	1-218-941-11		U	100	5%	1/16W	0.1313	1-109-902-11	OLITAINIO OIIII	Tut	1070	1,0 V
110040	1 210 011 11	1120,01111		100	3,0	.,	C1600	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
R5046	1-218-941-11	RES,CHIP		100	5%	1/16W	C1601	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
R5047	1-218-941-11			100	5%	1/16W	C1602	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
R5101	1-216-864-11			0	5%	1/16W	C1603	1-164-937-11	CERAMIC CHIP	0.001uF	10% 10%	16V . 16V
R5102	1-218-901-11 1-218-975-11			180K 68K	0.50% 5%	1/16W 1/16W	C1604	1-164-943-11	CERAMIC CHIP	0.01uF	1076	100
R5103	1-210-373-11	7120,07111		OOK	0 70	1,1011	C1606	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
R5104	1-218-974-11	RES,CHIP		56K	5%	1/16W	C1607	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
R5105	1-218-887-11			47K	0.50%	1/16W	C1609	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5106	1-218-975-11			68K	5%	1/16W	C1610	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
R5107	1-218-970-11 1-218-982-11			27K 270K	5% 5%	1/16W 1/16W	C1611	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
R5108	1 210-302-11	rico, or in		LIVIN	₩ / 0	1, 1011	C1612	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5109	1-218-973-11	RES, CHIP		47K	5%	1/16W	C1613	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5110	1-218-974-11			56K	5%	1/16W	C1614	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5111	1-218-965-11			10K	5%	1/16W	C1615	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5113	1-218-979-11			150K 1.2K	5% 5%	1/16W 1/16W	C1617	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
R5114	1-218-954-11	NEO,UTIF		1,21	J /0	171000	C1618	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
R5115	1-218-980-11	RES,CHIP		180K	5%	1/16W	C1619	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
R5116	1-218-969-11			22K	5%	1/16W	C1620	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
R5117	1-218-985-11			470K	5%	1/16W	C1621	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
R5118	1-218-983-11			330K	5%	1/16W	C1622	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
R5119	1-218-971-11	RES,CHIP		33K	5%	1/16W	C1623	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
R5120	1-218-989-11	RES,CHIP		1M	5%	1/16W	C1804	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5121	1-218-974-11			56K	5%	1/16W	C1833	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5123	1-218-965-11	RES,CHIP		10K	5%	1/16W	C1834	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5125	1-218-971-11			33K	5%	1/16W	C1837	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5127	1-218-990-11	SHORT	0				C1838	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5128	1-218-953-11	RES,CHIP		1K	5%	1/16W	C1840	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5134	1-218-990-11		0	***,	- 10		C1844	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R5136	1-218-990-11		0				C1845	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
10 years	Annual Park Bills and against State of the en-	the state of the state of the state of	(* C)	Were warmen Fig.	arrente.	crassi income	C1846	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V .

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	Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
_		1-104-851-11	TANTAL, CHIP	10uF	20%	10V	C2045	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
	C1847		CERAMIC CHIP	47PF	5%	16V	C2046	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1850	1-164-866-11				16V	C2047	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1852	1-164-677-11	CERAMIC CHIP	0.033uF	10%						20%	6.3V
	C1854	1-164-866-11	CERAMIC CHIP	47PF	5%	16V	C2048	1-135-259-11	TANTAL, CHIP	10uF		
	C1856	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2049	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
								4 404 040 44	OFDAMMO OUID	0.04	4.00/	101/
	C1860	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2051	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1869	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2053	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	C1875	1-104-851-11	TANTAL, CHIP	10uF	20%	10V	C2054	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
	C1878	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2055	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
	C1881	1-164-935-11	CERAMIC CHIP	470PF	10%	16V	C2056	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	01001	1 101 000										
	C1884	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2206	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C1885	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2210	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	_	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2211	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C1886		CERAMIC CHIP	0.01uF	10%	16V	C2212	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
	C1887	1-164-943-11		0.01uF	10%	16V	C2213	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
	C1888	1-164-943-11	CERAMIC CHIP	0.01ur	1070	100	02213	1-104-051-11	IANTAL. OTH	Tour	2070	100
			OFF AND OUR	0.047	4.00/	101	00015	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1889	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2215		CERAMIC CHIP	0.01uF	10%	16V
	C1890	1-164-935-11	CERAMIC CHIP	470PF	10%	16V	C2216	1-164-943-11				
	C1891	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2217	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1901	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2218	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1903	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2219	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	C1904	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2220	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	C1909	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2221	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	C1910	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2222	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V -
	C1914	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2223	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
·.	-	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2224	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C1915	1-100-208-11	IANIAL. OIIII	Tour	2070	0.01	OLL!	, , , , , , , , , , , , , , , , , , , ,				
	04000	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V	C2225	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C1933			0.47uF	10%	16V	C2226	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C2001	1-107-823-11	CERAMIC CHIP			16V	C2227	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
	C2002	1-107-823-11	CERAMIC CHIP	0.47uF	10%					22PF	5%	16V
	C2003	1-164-943-11		0.01uF	10%	16V	C2232	1-164-858-11	CERAMIC CHIP			
	C2004	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2233	1-164-854-11	CERAMIC CHIP	15PF	5%	16V
										0.4 5		4017
	C2007	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2234	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C2008	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2237	1-107-820-11	CERAMIC CHIP	0.1uF		16V
	C2009	1-110-569-11	TANTAL, CHIP	47uF	20%	6.3V	C2238	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
	C2010	1-110-569-11		47uF	20%	6.3V	C2239	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
	C2012	1-107-823-11		0.47uF	10%	16V	C2400	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
	02012	1 101 020 11										
	C2014	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V	C2402	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
	C2015	1-164-943-11		0.01uF	10%	16V	C2403	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
		1-107-823-11		0.47uF	10%	16V	C2405	1-164-943-11		0.01uF	10%	16V
	C2016			100PF	5%	16V	C2408	1-164-943-11		0.01uF	10%	16V
	C2017	1-164-874-11				6.3V	C2409	1-164-943-11		0.01uF	10%	16V
	C2018	1-135-259-11	TANTAL. CHIP	10uF	20%	0.37	62409	1-104-943-11	OLIMINIO OTTI	0.0141	1070	100
		1 107 000 11	TANITAL OLUD	4 7	000/	161/	C2410	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
	C2022	1-107-686-11		4.7uF	20%	16V				0.0047uF	10%	16V
	C2024	1-135-091-00			20%	16V	C2500	1-164-941-11				
	C2025	1-135-259-11		10uF	20%	6.3V	C2507	1-164-937-11		0.001uF	10%	16V
	C2027	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2546	1-164-943-11		0.01uF	10%	16V
	C2028	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	C2550	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
	C2029	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	C2551	1-125-777-11		0.1uF	10%	10V
	C2030	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	C2552	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C2031	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	C2553	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
	C2032			10uF	20%	6.3V	C2554	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
	C2033			1uF	10%	10V	C2555	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	02000	1 100 002 11	OLI DINING GIAN	,								
	C2034	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2556	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
	C2034			0.01uF	10%	16V	C2557	1-125-777-11		0.1uF	10%	10V
				0.47uF	10%	16V	C2558	1-125-777-11		0.1uF	10%	10V
	C2036				20%	6.3V	C2559	1-125-777-11		0.1uF	10%	10V
	C2037			10uF			1	1-125-777-11	TANTAL, CHIP	4.7uF	20%	16V
	C2038	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2561	1-107-000-11	INNIAL, UNIF	7.7 UI	2070	,0 v
	0000	4 404 040 44	OFFI AMIC OLUF	0.045	100/	16V	C2562	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	C2039			0.01uF	10%			1-164-943-11		0.01uF	10%	16V
	C2040			10uF	20%	6.3V	02563			0.01uF	10%	16V
	C2041	1-135-259-11		10uF	20%	6.3V	C2564	1-164-943-11				
	C2042			10uF	20%	6.3V	C2565	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
	C2044	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2566	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No. Part No. Description Remarks Ref. No. Part No. Description C2567 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3242 1-115-566-11 CERAMIC CERAMIC CERAMIC CHIP C2570 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3243 1-115-566-11 CERAMIC CERAMIC CERAMIC CERAMIC CHIP C2572 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3244 1-109-982-11 CERAMIC CE	HIP 4.7uF HIP 1uF HIP 2.2uF HIP 2.2uF HIP 2.2uF HIP 0.1uF HIP 0.1uF HIP 10uF HIP 10uF	10% 10% 10%	Remarks 10V 10V 10V 16V 16V 6.3V 16V 50V
C2567 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3242 1-115-566-11 CERAMIC C C2569 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3243 1-115-566-11 CERAMIC C C2570 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3244 1-109-982-11 CERAMIC C C2572 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3245 1-164-505-11 CERAMIC C C2573 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3246 1-164-505-11 CERAMIC C C2574 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3247 1-135-259-11 TANTAL. CH C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC C C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	HIP 4.7uF HIP 1uF HIP 2.2uF HIP 2.2uF HIP 2.2uF HIP 0.1uF HIP 0.1uF HIP 10uF HIP 10uF	10% 10% 20%	10V 10V 16V 16V 6.3V 16V
C2569 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3243 1-115-566-11 CERAMIC CC2570 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3244 1-109-982-11 CERAMIC CC2572 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3245 1-164-505-11 CERAMIC CC2573 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3246 1-164-505-11 CERAMIC CC2574 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3247 1-135-259-11 TANTAL. CHIP C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC C	HIP 4.7uF HIP 1uF HIP 2.2uF HIP 2.2uF HIP 2.2uF HIP 0.1uF HIP 0.1uF HIP 10uF HIP 10uF	10% 10% 20%	10V 10V 16V 16V 6.3V 16V
C2570 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3244 1-109-982-11 CERAMIC C C2572 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3245 1-164-505-11 CERAMIC C C2573 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3246 1-164-505-11 CERAMIC C C2574 1-165-176-11 CERAMIC C C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3247 1-135-259-11 TANTAL. CH C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC C C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	HIP 1uF HIP 2.2uF HIP 2.2uF HIP 2.2uF HIP 2.2uF HIP 0.1uF HIP 10uF HIP 10uF	10% 20% 20%	10V 16V 16V 6.3V 16V
C2572 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3245 1-164-505-11 CERAMIC CC2573 1-107-686-11 TANTAL. CHIP 4.7uF 20% 16V C3246 1-164-505-11 CERAMIC CC2574 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3247 1-135-259-11 TANTAL. CHC2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CE	HIP 2.2uF HIP 2.2uF HIP 10uF HIP 2.2uF HIP 0.1uF HIP 10uF HIP 10uF	20% 20%	16V 16V 6.3V 16V
C2573 1-107-686-11 TANTAL CHIP 4.7uF 20% 16V C3246 1-164-505-11 CERAMIC CC2574 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3247 1-135-259-11 TANTAL CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CC2576	HIP 2.2uF HIP 10uF HIP 2.2uF HIP 0.1uF IIP 10uF	20%	16V 6.3V 16V
C2574 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3247 1-135-259-11 TANTAL CH C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC CC2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC CC2576 1-125-777-11 CERAMIC CC	HIP 10uF HIP 2.2uF HIP 0.1uF HIP 10uF	20%	6.3V 16V
C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC C C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	HIP 2.2uF HIP 0.1uF IIP 10uF IIP 10uF	20%	16V
C2575 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3248 1-164-505-11 CERAMIC C C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	HIP 2.2uF HIP 0.1uF IIP 10uF IIP 10uF	20%	16V
C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	HIP 0.1uF IIP 10uF IIP 10uF		
C2576 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3249 1-165-319-11 CERAMIC C	IIP 10uF IIP 10uF		50V
	IIP 10uF		
C2577 1-107-686-11 TANTAL CHIP 4.7uF 20% 16V C3250 1-135-259-11 TANTAL CH		0.00/	6.3V
C2579 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3251 1-135-259-11 TANTAL. CF	IIP 10uF	20%	6.3V
GEOTO TIES THE GENERAL STATE OF THE STATE OF	IIP 10uF		
C2582 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3252 1-135-259-11 TANTAL. CH		20%	6.3V
C2583 1-107-686-11 TANTAL CHIP 4.7uF 20% 16V C3253 1-104-851-11 TANTAL CHIP	IIP 10uF	20%	10V
C2585 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3254 1-107-819-11 CERAMIC C	HIP 0.022uF	10%	16V
CESCO I LET CALL ALL CONTRACTOR OF CALL CONTRACTOR		10%	16V
02000 1 120 111 11 021 111 0111 01		20%	10V
C2587 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3256 1-104-851-11 TANIAL CI	iii Tour	2070	100
C2588 1-125-777-11 CERAMIC CHIP 0.1uF 10% 10V C3257 1-104-851-11 TANTAL CI	IIP 10uF	20%	10V
02000 120 111 112 113 114 115		20%	10V
02000 1 101010 1 711711 0		20%	20V
C2590 1-164-874-11 CERAMIC CHIP 100PF 5% 16V C3259 1-135-214-21 TANTAL CI		2070	
C2591 1-164-874-11 CERAMIC CHIP 100PF 5% 16V C3260 1-164-505-11 CERAMIC C		4.00/	16V
C3200 1-107-819-11 CERAMIC CHIP 0.022uF 10% 16V C3261 1-109-982-11 CERAMIC C	HIP 1uF	10%	10V
			4017
C3201 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V C3262 1-164-505-11 CERAMIC C			16V
C3202 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3263 1-107-819-11 CERAMIC C			16V
C3203 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V C3264 1-113-985-11 TANTAL CI		20%	. 20V
C3204 1-165-176-11 CERAMIC CHIP 0.047uF 10% 16V C3265 1-164-505-11 CERAMIC (HIP 2.2uF		16V
C3205 1-107-819-11 CERAMIC CHIP 0.022uF 10% 16V C3266 1-115-467-11 CERAMIC (HIP 0.22uF	10%	10V
C3206 1-104-913-11 TANTAL CHIP 10uF 20% 16V C3267 1-135-259-11 TANTAL CI	IIP 10uF	20%	6.3V
C3207 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V C3269 1-164-004-11 CERAMIC C	CHIP 0.1uF	10%	25V
C3208 1-104-913-11 TANTAL CHIP 10uF 20% 16V C3270 1-119-751-11 TANTAL C	HP 22uF	20%	.16V
C3209 1-164-874-11 CERAMIC CHIP 100PF 5% 16V C3271 1-109-982-11 CERAMIC (CHIP 1uF	10%	10V
C3210 1-119-751-11 TANTAL CHIP 22uF 20% 16V			
< CONNEC	ΓOR >		
C3211 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V			
	R, FFC/FPC 10P)	
G3212 1-102 300 11 GET WING G111 G130 12 G130	R, BOARD TO E)P
CALCOLO 1 TO 1 TO 1 TO 1 TO 1 TO 1 TO 1 TO 1			••
0N10000 4 704 400 04 00NNF0T(R, FFC/FPC (ZIF		
00210 1 102 000 11 0211/4/10 0111	R, BOARD TO E	,	D
	IN, BUAND TO E	DOAND ZU	
C3217 1-162-962-11 CERAMIC CHIP 470PF 10% 50V C3218 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V CN2905 1-779-334-11 CONNECTO	D EEC/EDC OOE		
CALCOLO 4 TT4 OCO 44 COMMETCE	IN, FFU/FFU ZUF	OADD CO	n
C3219 1-162-960-11 CERAMIC CHIP 220PF 10% 50V CN2906 1-774-602-41 CONNECTO			F
C3220 1-164-874-11 CERAMIC CHIP 100PF 5% 16V CN2907 1-766-348-21 CONNECTO			
C3221 1-164-505-11 CERAMIC CHIP 2.2uF 16V CN2911 1-766-647-21 CONNECTO			
	R, FFC/FPC (ZIF	-) 2/P	
C3222 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V			
03223 1110 000 11 0210 0010 1110	R, FFC/FPC (ZIF	-) 2/P	
C3224 1-164-939-11 CERAMIC CHIP 0.0022uF 10% 16V CN3200 1-580-057-11 PIN, CONN			
C3225 1-164-940-11 CERAMIC CHIP 0.0033uF 10% 16V CN3201 1-691-550-11 PIN, CONN	ECTOR (1.5MM))(SMD) 3F	
C3226 1-164-939-11 CERAMIC CHIP 0.0022uF 10% 16V			
< DIODE >			
C3227 1-164-939-11 CERAMIC CHIP 0.0022uF 10% 16V			
C3228 1-164-940-11 CERAMIC CHIP 0.0033uF 10% 16V D1600 8-719-055-86 DIODE KV	1470TL1-3		
C3229 1-164-939-11 CERAMIC CHIP 0.0022uF 10% 16V D2200 8-719-421-27 DIODE M.	4728-TX		
C3230 1-164-939-11 CERAMIC CHIP 0.0022uF 10% 16V D2201 8-719-421-27 DIODE M.	4728-TX		
C3231 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V D2203 8-719-056-23 DIODE M.)	
D2206 8-719-056-23 DIODE M.	, ,		
C3232 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V	. (,		
00202 1 110 000 1 100 00 00 00 00 00 00 00 00	1728-TX		
00200 T TTO COL TO THE PLANT OF			
DOZOT TITO GOOD DIODE IN)	
00200 1 110 000 11 021111110 0111		,	
D3201 8-719-420-14 DIODE M	10U0Z-1X		
C3237 1-104-851-11 TANTAL CHIP 10uF 20% 10V	lonon TV		
C3238 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V D3202 8-719-420-14 DIODE M			
C3239 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V D3203 8-719-420-14 DIODE M			
C3240 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V D3204 8-719-056-48 DIODE 1S			
C3241 1-115-566-11 CERAMIC CHIP 4.7uF 10% 10V D3205 8-719-066-34 DIODE RE			
D3206 8-719-066-34 DIODE RE	461F-T106		

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remark	<u>:S</u>
				L2202		INDUCTOR 1u	u	
D3207		DIODE RB461F-T106		L2400	1-414-751-11	INDUCTOR 10		
D3208		DIODE 1SS388(TPL3)			1-414-754-11			
D3209	8-719-066-34	DIODE RB461F-T106		L2511 L2512	1-414-754-11	INDUCTOR 10		
D3210		DIODE RB461F-T106		L3204		INDUCTOR 10		
D3211	8-719-066-34	DIODE RB461F-T106		L3204	1-410-340-11	INDUCTOR 22	un	
D3212	8-719-066-16	DIODE RB491D-T146		L3205	1-416-346-11	INDUCTOR 33	uH ·	
D3213		DIODE MA796-TX		L3206	1-416-345-11			
D3214		DIODE RB461F-T106		L3207	1-416-345-11	INDUCTOR 22	tuH	
D3215		DIODE RB461F-T106		L3208	1-416-345-11	INDUCTOR 22	tuH	
D3216		DIODE 1SS388(TPL3)		L3209	1-416-345-11	INDUCTOR 22	luH	
D3217	8-719-056-48	DIODE 1SS388(TPL3)		L3210		INDUCTOR 4.		
D3220		DIODE 1SS388(TPL3)		L3211	1-414-396-21			
D3221		DIODE 1SS388(TPL3)		L3212	1-414-396-21	INDUCTOR 4.		
D3223		DIODE 1SS388(TPL3)			1-414-396-21			
D3224	8-719-056-48	DIODE 1SS388(TPL3)		L3214	1-414-396-21	INDUCTOR 4.	7uH	
		DIODE ****00444 (VO) 00		10015	1 414 206 21	INDUCTOR 4.	7.1.L	
D3226		DIODE MA2S111-(K8).S0 DIODE MA2S111-(K8).S0		L3215 L3216	1-414-396-21			
D3227	8-719-000-20	DIODE MA23111-(K0).30			1-414-396-21			
		< IC >		L3218		INDUCTOR 4.		
		< 10 >		L0210	1-414-030-21	110001011 4.	, uii	
IC1400	8-759-430-57	IC M62367GP-75ED				< LINE FILTER	>	
IC1402	8-759-534-25	IC AN2222FBQ-EB						
IC1501	8-759-535-44	IC M65511WG-600D		LF3200	1-411-957-11	FILTER, COMA	MON MODE	
IC1502	8-759-547-25	IC MB90097PFV-G-110-BND-ER						
IC1600	8-759-545-03	IC HG73C037BPTL				< IC LINK >		
101001	0.750.000.00	IC CXD3129R-T6		A PS2200	1-576-122-21	LINK IC	0.4A	
		IC CXD3200R-T6			1-533-760-21		1.4A	
		IC CXA2071R-T4			1-533-760-21		1.4A	
101014	9.752-086-53	IC CXA2072R-T4			1-533-760-21		1.4A	
101010	8-759-534-27	1C F712504BPM-TEB			1-533-760-21		1.4A	
101300	0 700 004 27	70 17 1200 151 III 125				(1)		
IC2001	8-759-566-17	IC AN2902FHQ-EB			1-533-760-21		1.4A	
IC2002	8-759-557-16	IC PCM3006T/T2			1-533-760-21		1.4A	
IC2200	8-759-398-90	IC S-81236PG-P7-T1		△ PS3206	1-533-760-21	FUSE (SMD)	1.4A	
IC2201		IC S-8423YFS-T2						
IC2203	8-759-536-72	IC TL1596CPWR				< TRANSISTO	R>	
100004	0.750.566.07	IC S579286GGB-TEB		01400	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).S0	
		IC MB91191LGA-G-127-BND-ER					UN9113J-(K8).SO	
		IC AK6480AM-E2		Q1403			2SC5376-B(TE85L)	
IC2404 IC2503		IC CXA8062R-EB		Q1405	8-729-040-77	TRANSISTOR	2SC5376-B(TE85L)	
IC2503		IC CXA8053Q-TE-B		Q1406			2SC5376-B(TE85L)	
102304	0-733-000 34	10 0///00000 12 5		4,100	0.200.0			
IC2505	8-759-434-46	IC TA8486F(EL)		Q1500			2SD2216J-QR(K8).S0	
1C3200		IC MB4488PFV-G-BND-ER		Q1501			2SD2216J-QR(K8).S0	
				Q1502			2SD2216J-QR(K8).S0	
		< COIL >		Q1810			2SB1462J-QR(K8).SO	
				Q2003	8-729-037-61	TRANSISTOR	UN9113J-(K8).SO	
L1400	1-414-754-11					TD 411010TOD	111100404 (10) 00	
L1404		INDUCTOR 10uH		Q2004			UN9210J-(K8).S0	
L1500	1-414-757-11			Q2005			UN9210J-(K8):S0	
L1501	1-414-757-11			Q2006			2SD2216J-QR(K8).SO	
L1601	1-412-941-11	INDUCTOR 1.5uH		Q2007			2SD2216J-QR(K8).SO	
14000	1 414 754 11	INDUCTOR 10uH		Q2008	0-129-031-52	ILVIOIOIOK	2SD2216J-QR(K8).S0	
L1602	1-414-754-11 1-414-754-11			Q2009	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).S0	
L1603	1-414-754-11			Q2003			UN9115J-(K8).SO	
L1604 L1605	1-414-754-11			Q2012			UN9115J-(K8).S0	
L1803	1-414-754-11			Q2012			UN9213J-(K8).SO	
F1003	1 - 1 - 1 - 1 0 - 1 1			02014			2SD1511-R/S(TX)	
Ĺ1808	1-414-754-11							
L1811	1-414-754-11	INDUCTOR 10uH						
L2004		INDUCTOR 10uH						
L2005	1-414-754-11						•	
L2201	1-414-754-11	INDUCTOR 10uH			Note:		Note:	
				1 '				- 1

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Note: Les composants identifiés par une marque ∆ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

									-	
Ref. No.	Part No.	Description		Remarks	Ref. No.	Part No.	Description			<u>Remarks</u>
Q2200			UN9213J-(K8).SO		Q3241	8-729-037-52	TRANSISTOR	2SD2216.I-0)B(K8) SO	
Q2200			UN9213J-(K8).SO		Q3242		TRANSISTOR			
Q2202			2SD2216J-QR(K8).SO		Q3243	8-729-037-52				
Q2202 Q2203			2SD2216J-QR(K8).SO		Q3244		TRANSISTOR			
Q2206			HN1L02FU(TE85R)		Q3245		TRANSISTOR			
Q2200	0-123-041-40	ITANOIOTON	THE LOCA O(TEDOTA)		40210	0 120 001 02	110 110 10 10 10 11	20022100	2.11(1.10)1.00	
Q2211	8-729-042-58	TRANSISTOR	UN9111J-(K8).SO		Q3246	8-729-037-52	TRANSISTOR	2SD2216J-0	QR(K8).SO	
Q2212			2SK2009(TE85L)		Q3247	8-729-037-53	TRANSISTOR	2SB1462J-0	R(K8).SO	
Q2212	8-729-427-70				Q3248	8-729-037-74				
Q2214			UN9113J-(K8).SO		Q3249		TRANSISTOR			
Q2216			2SB624-T1BV4		Q3250		TRANSISTOR		, ,	
Q										
Q2217	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO		Q3251	8-729-037-52	TRANSISTOR	2SD2216J-0	QR(K8).SO	
Q2218			UN9211J-(K8).SO		Q3252	8-729-037-74	TRANSISTOR	UN9213J-(k	(8).SO	
Q2219	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO		Q3253		TRANSISTOR			
Q2220	8-729-037-74	TRANSISTOR	UN9213J-(K8).SO		Q3254	8-729-037-74	TRANSISTOR	UN9213J-(k	(8).SO	
Q2221	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO							
							< RESISTOR >			
, Q2505			UN9213J-(K8).SO		D.1.100	4 040 004 44	DEC CLUB	0001/	5 0/	4 (4 0) 4 (
Q2506			2SB624-T1BV4		R1400			220K	5%	1/16W
Q2507			2SD2216J-QR(K8).SO		R1401	1-218-941-11	•	100	5%	1/16W
Q2901			UN9211J-(K8).SO		R1403	1-218-961-11		4.7K	5%	1/16W
Q3200	8-729-024-48	TRANSISTOR	2SK1830-TE85L		R1410	1-218-961-11	,	4.7K	5%	1/16W
			114T4000D FI		R1411	1-218-953-11	RES, CHIP	1K	5%	1/16W
△ Q3201			HAT1023R-EL		D4444	1 010 000 11	DEC CUID	201/	E0/	1/16W
△ Q3202			HAT1023R-EL		R1414			22K 10K	5% 5%	1/16W
Q3203			2SB1122-ST-TD		R1417 R1418	1-218-969-11		22K	5%	1/16W
Q3204	8-729-037-74		UN9213J-(K8).SO 2SK1830-TE85L		R1419			1K	5%	1/16W
Q3205	8-729-024-48	INAMOISION	25K103U-1E03L		R1413	1-218-953-11	,	1K	5%	1/16W
02206	8-729-822-05	TRANSISTOR	2SD1622-ST-TD		111721	1-210-303 11	neo,om	111	370	171011
Q3206 Q3207			2SB1462J-QR(K8).SO		R1425	1-218-935-11	RES CHIP	33	5%	1/16W
Q3207			2SB1122-ST-TD		R1426			10K	5%	1/16W
Q3209	8-729-043-94		CPH3106-PM-TL		R1430		*	1K	5%	1/16W
Q3210	8-729-043-94		CPH3106-PM-TL		R1432			10K	5%	1/16W
Q32.10	0 723 040 34	111/11/010101011	01110,100 1 111 12		R1433		•	1K	5%	1/16W
Q3211	8-729-043-94	TRANSISTOR	CPH3106-PM-TL							
Q3212			CPH3106-PM-TL	1	R1434	1-218-965-11	RES,CHIP	10K	5%	1/16W
Q3213	8-729-043-94		CPH3106-PM-TL		R1438	1-218-935-11	RES,CHIP	33	5%	1/16W
Q3214	8-729-043-94	TRANSISTOR	CPH3106-PM-TL		R1439			33	5%	1/16W
Q3215	8-729-037 - 52	TRANSISTOR	2SD2216J-QR(K8).SO		R1440			10K	5%	1/16W
					R1445	1-218-935-11	RES,CHIP	33	5%	1/16W
Q3216	8-729-017-61						DEC 01115	ėo.	E0/	4 (4 0) 4 (
Q3217	8-729-037-53		2SB1462J-QR(K8).SO		R1446	1-218-935-11	RES,CHIP	33	5%	1/16W
Q3218	8-729-041-24				R1447		RES,CHIP	33	5% 5%	1/16W 1/16W
Q3219	8-729-037-52		2SD2216J-QR(K8).SO		R1453		RES,CHIP RES,CHIP	68 1M	5% 5%	1/16W
Q3220	8-729-041-24	TRANSISTOR	MDSSSSAM		R1454 R1455	1-218-989-11 1-218-957-11		2.2K	5%	1/16W
Q3221	8-729-041-24	TRANSISTOR	NDS355AN		n 1400	1-710-991-1-1	ALO, OHIF	۷.۷۱	J /0	1,1000
	8-729-041-24				R1507	1-218-949-11	RES,CHIP	470	5%	1/16W
Q3222 Q3223	8-729-041-24				R1508			3.3K	5%	1/16W
Q3224	8-729-041-24				R1509			4.7K	5%	1/16W
Q3225			UN9213J-(K8).SO		R1510		RES,CHIP	470	5%	1/16W
0.0220	0.20 001 74				R1511	1-218-959-11	RES,CHIP	3.3K	5%	1/16W
Q3226	8-729-042-56	TRANSISTOR	MGSF3455VT1							
Q3227	8-729-037-61	TRANSISTOR	UN9113J-(K8).SO		R1512	1-218-961-11	*	4.7K	5%	1/16W
Q3228	8-729-037-74		UN9213J-(K8).SO		R1513	1-218-955-11		1.5K	5%	1/16W
Q3229			UN9213J-(K8).SO		R1514		RES,CHIP	470	5%	1/16W
Q3230	8-729-041-23	TRANSISTOR	NDS356AP		R1515			4.7K	5%	1/16W
					R1516	1-218-951-11	RES,CHIP	680	5%	1/16W
Q3231	8-729-041-23					4 040 055 11	OUIODT	^		
Q3232	8-729-037-52		2SD2216J-QR(K8).SO		R1517	1-218-990-11		0		
Q3233	8-729-037-53		2SB1462J-QR(K8).SO		R1519	1-218-990-11		0	E0/	4/46///
Q3234	8-729-037-52		2SD2216J-QR(K8).SO		R1521	1-218-947-11		330	5%	1/16W
Q3235	8-729-037-53	TRANSISTOR	2SB1462J-QR(K8).SO		R1522			0 4.7K	5% 5%	1/16W 1/16W
00000	0.700.007.50	TRANSISTOR	2SB1462J-QR(K8).S0		R1618	1-218-961-11	RES,CHIP	4.71	J 70	1/1000
Q3236 Q3237	8-729-037-53 8-729-037-52		2SD2216J-QR(K8).SO							
Q3237	8-729-037-52 8-729-037-52		2SD2216J-QR(K8).SO		-			1		
Q3239	8-729-037-53		2SB1462J-QR(K8).SO			Note:		Note:		2004
Q3240	8-729-037-53		2SB1462J-QR(K8).SO			The components mark ∆ or dotted		Les compo		
G0270	2 . 20 001 00					A are critical for		pour la séc		omques
					Ì	Replace only wit		Ne les rem	placer que	
•				6-	31	specified.		pièce portai	nt le numéro	spécifié.
				-	- ·					

Ref. No.	Part No.	Description				Remarks	Ref. No.	Part No.	Description				<u>Remarks</u>
R1619 R1621 R1622 R1623 R1624	1-218-947-11 1-218-965-11 1-218-965-11 1-218-990-11 1-218-990-11	RES,CHIP RES,CHIP SHORT	0	330 10K 10K	5% 5% 5%	1/16W 1/16W 1/16W	R1943 R1945 R2017 R2018 R2019	1-218-990-11 1-218-990-11 1-218-936-11 1-218-935-11 1-218-953-11	RES,CHIP	0	39 33 1K	5% 5% 5%	1/16W 1/16W 1/16W
R1625 R1626 R1627 R1628 R1629	1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2021 R2022 R2023 R2028 R2029	1-218-965-11 1-218-965-11 1-218-953-11 1-218-973-11 1-218-973-11	RES,CHIP RES,CHIP		10K 10K 1K 47K 47K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1630 R1632 R1633 R1635 R1638	1-218-990-11 1-218-849-11 1-208-703-11 1-218-849-11 1-218-990-11	RES,CHIP RES,CHIP RES,CHIP	0	1.2K 6.8K 1.2K	0.50% 0.50% 0.50%	1/16W 1/16W 1/16W	R2031 R2032 R2038 R2040 R2041	1-218-965-11 1-218-965-11 1-218-973-11 1-218-969-11 1-218-969-11	RES,CHIP RES,CHIP RES,CHIP		10K 10K 47K 22K 22K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1639 R1641 R1642 R1644 R1647	1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2052 R2053 R2054 R2055 R2056	1-218-990-11 1-218-990-11 1-218-960-11 1-218-968-11 1-218-936-11	SHORT RES,CHIP RES,CHIP	0	3.9K 18K 39	5% 5% 5%	1/16W 1/16W 1/16W
R1649 R1651 R1652 R1653 R1654	1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2057 R2058 R2059 R2060 R2061	1-218-935-11 1-218-957-11 1-218-957-11 1-218-957-11 1-218-957-11	RES,CHIP RES,CHIP RES,CHIP		33 2.2K 2.2K 2.2K 2.2K 2.2K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1689 R1694 R1695 R1696 R1697	1-218-937-11 1-218-938-11 1-218-938-11 1-208-707-11 1-208-707-11	RES,CHIP RES,CHIP RES,CHIP		47 56 56 10K 10K	5% 0.50% 0.50% 0.50% 0.50%	1/16W 1/16W 1/16W 1/16W 1/16W	R2062 R2063 R2064 R2065 R2066	1-218-949-11 1-218-949-11 1-218-953-11 1-218-951-11 1-218-965-11	RES,CHIP RES,CHIP RES,CHIP		470 470 1K 680 10K	5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1698 R1699 R1826 R1828 R1834	1-218-938-11 1-218-938-11 1-218-979-11 1-218-949-11 1-218-969-11	RES,CHIP RES,CHIP RES,CHIP		56 56 150K 470 22K	0.50% 0.50% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2201 R2203 R2204 R2205 R2206	1-218-953-11 1-218-953-11 1-218-953-11 1-218-977-11 1-218-945-11	RES,CHIP RES,CHIP RES,CHIP		1K 1K 1K 100K 220	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1836 R1837 R1838 R1843 R1848	1-218-965-11 1-218-965-11 1-218-969-11 1-218-831-11 1-218-965-11	RES,CHIP RES,CHIP RES,CHIP		10K 10K 22K 220 10K	5% 5% 5% 0.50% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2207 R2208 R2209 R2210 R2213	1-218-957-11 1-218-961-11 1-218-973-11 1-218-977-11 1-218-953-11	RES,CHIP RES,CHIP RES,CHIP		2.2K 4.7K 47K 100K 1K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1852 R1855 R1857 R1859 R1869	1-218-831-11 1-218-831-11 1-218-831-11	RES,CHIP RES,CHIP RES,CHIP		4.7K 220 220 220 220 12K	5% 0.50% 0.50% 0.50% 5%	1/16W	R2214 R2215 R2221 R2222 R2223	1-218-953-11 1-218-985-11 1-218-985-11 1-218-985-11 1-218-985-11	RES,CHIP RES,CHIP RES,CHIP		1K 470K 470K 470K 470K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1870 R1871 R1872	1-218-939-11	RES,CHIP	0	10K 68	5% 5%	1/16W 1/16W	R2224 R2225 R2226	1-218-985-11 1-218-985-11 1-218-985-11	RES,CHIP RES,CHIP		470K 470K 470K	5% 5%	1/16W 1/16W 1/16W
R1874 R1875				1M 10K	5% 5%	1/16W 1/16W	R2227 R2229	1-218-977-11 1-218-985-11			100K 470K	5% 5%	1/16W 1/16W
R1876 R1877 R1878 R1879 R1909	1-218-978-11 1-218-973-11 1-218-966-1	RES,CHIP RES,CHIP RES,CHIP		6.8K 120K 47K 12K 15	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2230 R2231 R2232 R2233 R2234	1-218-985-11 1-218-973-11 1-218-965-11 1-218-958-11 1-218-934-11	RES,CHIP RES,CHIP RES,CHIP		470K 47K 10K 2.7K 27	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1938 R1939 R1940 R1941 R1942	1-218-990-1 1-218-990-1 1-218-990-1	SHORT SHORT SHORT	0 0 0	100K	5%	1/16W	R2235 R2236 R2237 R2238 R2239	1-218-989-11 1-218-985-11 1-218-985-11 1-218-989-11 1-218-989-11	RES,CHIP RES,CHIP RES,CHIP		1M 470K 470K 1M 1M	5% 0.50% 0.50% 0.50% 0.50%	1/16W 1/16W

D-4 Na	Dort No.	Description			Remarks	Ref. No.	Part No.	Description				Remarks
Ref. No.	Part No.		100K	5%	1/16W	R2302	1-218-953-11	RES,CHIP		1K	5%	1/16W
R2240 R2241	1-218-977-11 1-218-977-11	RES,CHIP	100K	5%	1/16W	R2302	1-218-953-11	,		1K	5%	1/16W
R2241 R2242	1-218-977-11		100K	5%	1/16W	R2304	1-218-953-11			1K	5%	1/16W
R2245	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2401	1-218-985-11			470K	5%	1/16W
R2246	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2405	1-218-977-11			100K	5%	1/16W
						5						
R2247	1-218-977-11	RES,CHIP	100K	5%	1/16W	R2406	1-218-977-11			100K	5%	1/16W
R2248	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2407	1-218-977-11			100K	5%	1/16W 1/16W
R2249	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2408	1-218-977-11	RES,CHIP RES,CHIP		100K 470K	5% 5%	1/16W
R2250	1-218-989-11	RES,CHIP	1M 1M	5% 5%	1/16W 1/16W	R2409 R2410	1-218-985-11 1-218-953-11			1K	5%	1/16W
R2251	1-218-989-11	RES,CHIP	TIVI	J /6	171044	112410	1-210-333 11	1120,01111			0 /0	.,
R2252	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2411	1-218-953-11			1K	5%	1/16W
R2253	1-218-989-11	RES, CHIP	1M	5%	1/16W	R2415	1-218-953-11	RES,CHIP		1K	5%	1/16W
R2254	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2416	1-218-985-11			470K	5%	1/16W
R2255	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2417	1-218-953-11			1K	5%	1/16W
R2256	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2418	1-218-985-11	RES,CHIP		470K	5%	1/16W
20057	1 010 070 11	RES,CHIP	47K	5%	1/16W	R2419	1-218-953-11	RES,CHIP		1K	5%	1/16W
R2257 R2258	1-218-973-11 1-218-985-11	RES,CHIP	470K	5%	1/16W	R2420	1-218-985-11			470K	5%	1/16W
R2259	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2421	1-218-953-11			1K	5%	1/16W
R2260	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2422	1-218-985-11			470K	5%	1/16W
R2261	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2423	1-218-953-11			1K	5%	1/16W
112201	,											
R2262	1-219-570-11	RES,CHIP	10M	5%	1/16W	R2424	1-218-985-11			470K	5%	1/16W
R2263	1-218-962-11	RES,CHIP	5.6K	5%	1/16W	R2425	1-218-990-11		0			
R2264	1-218-957-11	•	2.2K	5%	1/16W	R2426	1-218-990-11	SHORT	0			
R2265	1-218-977-11		100K	5%	1/16W	R2427	1-218-990-11	SHORT	0			
R2266	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2428	1-218-990-11	SHORT	0			
R2267	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2429	1-208-943-11	RES,CHIP		220K	0.50%	1/16W
R2268	1-218-949-11	•	470	5%	1/16W	R2430	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
R2269	1-218-955-11	*	1.5K	5%	1/16W	R2432	1-218-977-11	RES,CHIP		100K	5%	1/16W
R2270	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2433	1-218-977-11			100K	5%	1/16W
R2271	1-216-791-11	METAL CHIP	3.3	5%	1/16W	R2434	1-218-977-11	RES,CHIP		100K	5%	1/16W
50070		DEC CUID	171/	5%	1/16W	R2436	1-218-977-11	RES,CHIP		100K	5%	1/16W
R2272	1-218-961-11	RES,CHIP	4.7K 3.3K	5%	1/16W	R2439	1-218-977-11	•		100K	5%	1/16W
R2273	1-218-959-11	RES,CHIP RES,CHIP	3.3K	5%	1/16W	R2440	1-218-977-11	RES,CHIP		100K	5%	1/16W
R2274 R2275	1-218-959-11 1-218-959-11	RES,CHIP	3.3K	5%	1/16W	R2441	1-218-985-11	RES,CHIP		470K	5%	1/16W
R2276	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2442	1-218-990-11		0			
										4	=0.4	4400
R2277	1-218-941-11		100	5%	1/16W	R2445	1-218-961-11	•		4.7K	5%	1/16W 1/16W
R2278	1-218-941-11	RES,CHIP	100	5%	1/16W	R2505	1-218-965-11 1-208-707-11			10K 10K	5% 0.50%	1/16W
R2279	1-218-953-11	RES,CHIP	1K	5%	1/16W 1/16W	R2506 R2507	1-218-965-11			10K	5%	1/16W
R2280	1-218-953-11	•	1K 1K	5% 5%	1/16W	R2508	1-218-965-11			10K	5%	1/16W
R2281	1-218-953-11	neo,unir	111	3 70	1/1044	112000	1 210 000 11	neo,om			0,0	
R2282	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2510	1-218-959-11			3.3K	5%	1/16W
R2283	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2511	1-208-935-11			100K	0.50%	1/16W
R2284	1-218-953-11		1K	5%	1/16W	R2512	1-218-990-11		0	400	5 0/	4/4 014/
R2285	1-218-953-11		1K	5%	1/16W	R2517	1-218-989-11			1M	5%	1/16W
R2286	1- 218-953-11	RES,CHIP	1K	5%	1/16W	R2530	1-218-971-11	RES, CHIP		33K	5%	1/16W
R2287	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2531	1-217-671-11	METAL CHIP		1	5%	1/10W
R2288	1-218-953-11	•	1K	5%	1/16W	R2532	1-217-671-11			1	5%	1/10W
R2289	1-218-953-11		1K	5%	1/16W	R2533	1-217-671-11			1	5%	1/10W
R2290	1-218-953-11		1K	5%	1/16W	R2534	1-218-940-11	RES,CHIP		82	5%	1/16W
R2291	1-218-953-11	•	1K	5%	1/16W	R2546	1-218-979-11	RES,CHIP		150K	5%	1/16W
	4 040 000 11	DEC OUR	41/	E0/	1/16\\	R2547	1-218-965-11	BEG CHID		10K	5%	1/16W
R2292	1-218-953-11		1K 1K	5% 5%	1/16W 1/16W	R2547	1-218-961-11			4.7K	5%	1/16W
R2293	1-218-953-11 1-218-953-11		1K 1K	5%	1/16W	R2550	1-218-961-11			4.7K	5%	1/16W
R2294 R2295	1-218-953-11		1K	5%	1/16W	R2551	1-208-675-11			470	0.50%	1/16W
R2295 R2296	1-218-953-11		1K	5%	1/16W	R2552	1-218-965-11			10K	5%	1/16W
112230	1 = 10 000 11											
R2297	1-218-953-11		1K	5%	1/16W	R2553	1-218-965-11			10K	5%	1/16W
R2298	1-218-953-11		1K	5%	1/16W	R2554	1-218-965-11			10K	5%	1/16W
R2299	1-218-953-11		1K	5%	1/16W	R2556	1-218-978-11			120K	5% 5%	1/16W 1/16W
R2300	1-218-989-11	•	1M	5% 5%	1/16W	R2557 R2558	1-218-986-11 1-218-953-11			560K 1K	5%	1/16W
R2301	1-218-953-11	RES,CHIP	1K	5%	1/16W	I U7000	1-510-900-11	neo,onir		HV .	J /0	1/1044

Ref. No.	Part No.	Description				<u>Remarks</u>	Ref. No.	Part No.	Description				<u>Remarks</u>
R2559	1-218-969-11	RES,CHIP		22K	5%	1/16W	R3228	1-218-969-11			22K	5%	1/16W
R2560	1-218-969-11	RES,CHIP		22K	5%	1/16W	R3230	1-218-965-11			10K	5% 0.50%	1/16W 1/16W
R2564	1-217-671-11	METAL CHIP		1	5%	1/10W 1/10W	R3231 R3232	1-208-927-11 1-218-969-11			47K 22K	5%	1/16W
R2565	1-217-671-11 1-218-941-11	METAL CHIP RES,CHIP		1 100	5% 5%	1/16W	R3233	1-208-927-11			47K		1/16W
R2566	1-210-341-11	NLO,OIIII		100	070	171011	110200						
R2567	1-218-941-11	RES,CHIP		100	5%	1/16W	R3234	1-218-971-11			33K	5%	1/16W
R2568	1-218-941-11	RES,CHIP		100	5%	1/16W	R3235	1-208-715-11	•		22K 10K	0.50% 5%	1/16W 1/16W
R2569	1-218-957-11			2.2K 100K	5% 5%	1/16W 1/16W	R3236 R3237	1-218-965-11 1-218-974-11	RES,CHIP RES,CHIP		56K	0.50%	1/16W
R2570 R2571	1-218-977-11 1-218-970-11			27K	5%	1/16W	R3238	1-218-974-11			56K	0.50%	1/16W
1(2011	1 210 010 11	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									2016	0.500/	
R2572	1-218-965-11	RES,CHIP		10K	5%	1/16W	R3239	1-208-715-11			22K 100K	0.50% 0.50%	1/16W 1/16W
R2573	1-218-949-11	RES,CHIP		470	5% 5%	1/16W 1/10W	R3240 R3241	1-208-935-11 1-218-945-11			220	5%	1/16W
R2574 R2575	1-217-671-11 1-217-671-11			1	5%	1/10W	R3242	1-208-709-11			12K	0.50%	1/16W
R2576	1-217-671-11			i	5%	1/10W	R3243	1-208-697-11			3.9K	0.50%	1/16W
							D0044	4 000 007 11	DEC CLUD		3.9K	0.50%	1/16W
R2577	1-217-671-11			1 47K	5% 5%	1/10W 1/16W	R3244 R3245	1-208-697-11 1-208-691-11			2.2K	0.50%	1/16W
R2578 R2579	1-218-973-11 1-218-965-11	RES,UMIP		10K	5%	1/16W	R3246	1-216-296-91		0			.,
R2579	1-218-935-11			33	5%	1/16W	R3247	1-218-965-11			10K	5%	1/16W
R2581	1-218-935-11			33	5%	1/16W	R3248	1-218-945-11	RES,CHIP		220	5%	1/16W
		DE0 01110		4.7K	5%	1/16W	R3249	1-218-945-11	RES,CHIP		220	5%	1/16W
R2582 R2583	1-218-961-11 1-218-965-11			10K	5%	1/16W	R3250	1-218-969-11	•	,	22K	5%	1/16W
R2585	1-218-959-11	RES,CHIP		3.3K	5%	1/16W	R3251	1-218-973-11			47K	5%	1/16W
R2586	1-218-944-11			180	5%	1/16W	R3252	1-218-941-11			100	5%	1/16W
R2587	1-218-969-11			22K	5%	1/16W	R3253	1-218-941-11	RES,CHIP		100	5%	1/16W
D0500	4 047 074 44	METAL CHIP		1	5%	1/10W	R3254	1-208-927-11	RES.CHIP		47K	0.50%	1/16W
R2599 R2901	1-217-671-11 1-217-671-11			1	5%	1/10W	R3255	1-218-945-11			220	5%	1/16W
R2902		METAL CHIP		1	5%	1/10W	R3256	1-218-947-11	•		330	5%	1/16W
R2903	1-218-990-11	SHORT	0				R3257	1-218-973-11			47K	5%	1/16W 1/16W
R2905	1-218-961-11	RES,CHIP		4.7K	5%	1/16W	R3258	1-218-965-11	RES,UMIP		10K	5%	1/1044
R2906	1-218-990-11	SHORT	0				R3259	1-208-719-11	RES,CHIP		33K	0.50%	1/16W
R2907	1-218-990-11		0				R3260	1-208-715-11	•		22K	0.50%	
R3200	1-218-989-11			1M	5%	1/16W	R3261	1-218-965-11			10K	5%	1/16W 1/16W
R3201	1-218-989-11			1M	5%	1/16W	R3262 R3263	1-218-989-11 1-216-864-11	,		1M 0	5% 5%	1/16W
R3202	1-218-849-11	RES,CHIP		3.3K	0.50%	1/16W	N3203	1-210-004-11	WEIAL OIM		O	070	17 1011
R3203	1-216-150-91	RES,CHIP		10	5%	1/8W	R3264	1-218-981-1	•		220K	5%	1/16W
	1-218-953-11			1K	5%	1/16W	R3265				47K	5%	1/16W
R3205	1-218-953-11	RES,CHIP		1K	5%	1/16W	R3266				22K 1M	5% 5%	1/16W 1/16W
R3206	1-218-961-11			4.7K 3.3K	5% 0.50%	1/16W 1/16W	R3267 R3268				220K	5%	1/16W
R3207	1-218-849-11	neo,onir		3.51	0.5070	1,7000	110200	. 210 001	7.20,0				
R3208	1-218-973-11	RES,CHIP		47K	5%	1/16W	R3269				100K	5%	1/16W
R3209	1-208-715-11			22K	0.50%		R3270	1-218-989-1 ⁻ 1-218-977-1 ⁻			1M 100K	5% 5%	1/16W 1/16W
R3210	1-218-981-11		0	220K	5%	1/16W	R3271 R3272				47K	5%	1/16W
R3211 R3212	1-216-296-91 1-208-707-11		V	1.0K	0.50%	1/16W	R3273				10K	5%	1/16W
110212	, 200, 101						,				4001/	E0/	1 (4 CVM
R3213	1-208-935-11			100K	0.50%		R3274 R3275				100K 820K	5% 5%	1/16W 1/16W
R3214	1-218-953-11 1-216-296-91		0	1K	5%	1/16W	R3276				100K	5%	1/16W
R3215 R3216	1-216-296-9		0				R3277				22K	5%	1/16W
R3217	1-218-953-1			1K	5%	1/16W	R3278	1-208-949-1	RES,CHIP		390K	0.50%	1/16W
		. DEC 01115		0014	0.500/	4.4614	D2070	1 200 027-1	RES,CHIP		47K	0.50%	1/16W
R3218	1-208-715-11			22K 1.2K	0.50% 0.50%	1/16W 1/16W	R3279 R3280				120K	0.50%	
R3219 R3220	1-218-849-11 1-208-715-11			22K	0.50%		R3281				150K	0.50%	1 /16W
R3221	1-218-969-1			22K	5%	1/16W	R3282	1-208-927-1	•		47K	0.50%	
R3222	1-218-965-1	1 RES,CHIP		10K	5%	1/16W	R3283	1-208-935-1	RES,CHIP		100K	0.50%	1/16W
Dance	1-208-707-1	1 RES CHID		10K	0.50%	1/16W	R3284	1-208-719-1	RES,CHIP		33K	0.50%	1/16W
R3223 R3224	1-208-707-1			68K	0.50%		R3285				220K	0.50%	1/16W
R3225	1-218-970-1			27K	5%	1/16W	R3286	1-208-947-1	RES,CHIP		330K	0.50%	
R3226	1-218-973-1	1 RES,CHIP		47K	5%	1/16W	R3287				100K	0.50% 5%	1/16W 1/16W
R3227	1-218-977-1	1 RES,CHIP		100K	5%	1/16W	R3288	1-218-977-1	neo,unip		100K	J /0	1/1000

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
			1001/	5%	1/16W	C131	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R3289	1-218-977-11 1-218-969-11		100K 22K	5%	1/16W	C132	1-162-920-11	CERAMIC CHIP	27pF	5%	50V
R3290 R3291	1-218-989-11	•	1M	5%	1/16W	C133	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R3292	1-218-977-11		100K	5%	1/16W						
R3293	1-218-981-11		220K	5%	1/16W			< CONNECTOR >	•		
	4 000 040 44	DEC CLUD	0001/	0.50%	1/16W	CN101	1-691-591-11	PIN, CONNECTO	B (1.5MM)	(SMD)8P	
R3294	1-208-943-11 1-218-978-11	RES,UMIP	220K 120K	0.50%	1/16W	CN102	1-568-006-11	CONNECTOR, XI			
R3295 R3296	1-216-976-11 1-208-941-11		180K	0.50%	1/16W	0.1.02		,		,	
R3297	1-218-990-11							< DIODE >			
R3298	1-208-943-11		220K	0.50%	1/16W			DIODE 144040) TV		
						D101	8-719-056-89	DIODE MA812			
R3299	1-218-990-11		10K	5%	1/16W	D102 D103	8-719-056-89 8-719-060-48	DIODE RB751\			
R3300	1-218-965-11 1-218-990-11		IUN	576	1/1000	D103	8-719-060-48	DIODE RB751\			
R3301 R3302	1-218-953-11	3113111	1K	5%	1/16W	D105	8-719-060-48	DIODE RB751\			
R3303	1-218-953-11		1K	5%	1/16W						
						D106	8-719-060-48	DIODE RB751\			
		< TRANSFORMER	>			D107	8-719-420-14	DIODE MA808			
		TRANSCORMER F	00 DO OOM	VEDTED		D108 D109	8-719-420-14 8-719-056-89	DIODE MA812			
T3200	1-433-417-21	TRANSFORMER, I				D110	8-719-056-89	DIODE MA812			*
T3201	1-429-565-21	I NANSI ORIMEN, C				3	0 1 10 000 00				
		< VIBRATOR >						< 1C >			
	4 707 000 11	VIBRATOR, CRYS	TAL 194 571	1 NALI-1		IC101	8-759-478-03	IC RN5RL50A	A-TL		
X1600 X2200	1-767-450-11	VIBRATOR, CERAI	MIC (24.57)	7)		IC102	8-759-111-56	IC uPC4572G2			
X2200 X2201	1-760-458-21	VIBRATOR, CRYS	TAL (32.76)	-) BMHz)		IC103	8-759-111-56	IC uPC4572G2	:-E2		
X2400	1-760-655-41	VIBRATOR, CRYS	TAL (20MH	z)							
Time & Estate	en en en en en en en en en en	y arrest their Interest in the	A Addition of the Control	*****	the degree of the			< COIL >			
	A 7070 700 A	XL-2 BOARD, COM	ADI ETE			L101	1-414-398-11	INDUCTOR 10	ıH		
	A-1013-130-A	*********				L102	1-414-398-11	INDUCTOR 10			
			(R	ef.No.:9,	000 Series)	L103	1-414-398-11	INDUCTOR 10			
						L104	1-414-854-11	INDUCTOR 10	1H		
		< CAPACITOR >						< IC LINK >			
0101	1-113-985-11	TANTAL, CHIP	10uF	20%	20V			(TO ETIME >			
C101 C102	1-164-156-11		0.1uF	1070	25V	△PS101	1-533 - 771-21	FUSE (SMD)(0.	8A)		
C103	1-164-156-11		0.1uF		25V						
C104	1-104-851-11	TANTAL. CHIP	10uF	20%	10V			< TRANSISTOR	> -		
C105	1-126-603-11	ELECT CHIP	4.7uF	20%	35V	Q101	8-720-041-23	TRANSISTOR	NDS356AP		
0406	1 126-603-11	ELECT CHIP	4.7uF	20%	35V	Q102		TRANSISTOR		1L5L6	
C106 C107	1-120-003-11		0.1uF	2070	25V	0,752					
C108	1-162-964-11		0.001uF	10%	50V			< RESISTOR >			
C109	1-162-964-11		0.001uF	10%	.50V	D.101	1 010 050 11	METAL OLUD	4701/	5%	1/16W
C110	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V	R101 R102	1-216-853-11 1-216-809-11		470K 100	5%	1/16W
0444	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	R103	1-216-845-11		100K	5%	1/16W
C111 C112	1-135-181-21		4.7uF	20%	6.3V	R104		METAL CHIP	27K	5%	1/10W
C113	1-135-181-21		1	20%	6.3V	R105	1-218-863-11	RES,CHIP	4.7K	0.50%	1/16W
C114	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D100	4 040 000 44	DEC CUID	4.7K	0.50%	1/16W
C115	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	R106 R107	1-218-863-11 1-218-863-11		4.7K	0.50%	
0440	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	R107	1-218-863-11		4.7K	0.50%	
C116 C117	1-102-913-11		4.7uF	20%	35V	R109	1-218-887-11		47K	0.50%	
C118	1-126-603-11		4.7uF	20%	35V	R110	1-218-885-11	RES,CHIP	39K	0.50%	1/16W
C119	1-126-603-11		4.7uF	20%	35V			550 01115	417	0.500/	4/40///
C120	1-126-603-11	ELECT CHIP	4.7uF	20%	35V	R111	1-218-847-11 1-218-825-11		1K 120	0.50% 0.50%	
0101	4 400 004 44	CERAMIC CHIP	0.001uF	10%	50V	R112 R113	1-218-825-11		120K	0.50%	
C121	1-162-964-11 1-162-964-11		0.001uF	10%	50V	R114	1-218-863-11		4.7K	0.50%	
C122 C123	1-162-964-11		0.001uF	10%	50V	R115	1-218-863-11		4.7K	0.50%	1/16W
C124	1-162-964-11		0.001uF	10%	50V						
C125	1-162-964-1	CERAMIC CHIP	0.001uF	10%	50V					•	
	4 400 004 4	CEDAMIC OUR	0.001uF	10%	50V						
C126 C127	1-162-964-1 ⁻ 1-162-964-1 ⁻		0.001uF	10%	50V				N-1		
C127	1-162-964-1		0.001uF	10%	50V		Note: The componen	ts identified by	Note: Les compo	sants ide	ntifiés par
C129	1-162-964-1	I CERAMIC CHIP	0.001uF	10%	50V		mark A or dotte	d line with mark	une marqu	ie 🛆 sont	
C130	1-162-964-1	CERAMIC CHIP	0.001uF	10%	50V	1	∆ are critical fo Replace only w		pour la séc Ne les rem		e par une
					_	. 05	Replace only w specified.	ur part Humber	pièce porta	nt le numéi	o spécifié.
		4			. 6	-35 l					

Power/access lamp DC jack |

Fig A Power cord (With adaptor connector)

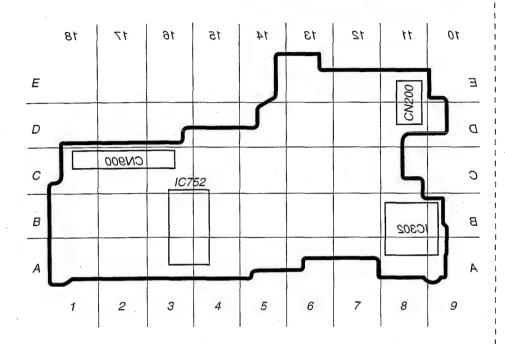
XL-2									
Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description	Remarks
			100K	5%	1/16W	502	1-959-236-11		-51)
R116	1-216-845-11		100K	5% 5%	1/16W	516	1-774-868-11		
R117	1-216-845-11 1-216-829-11		4.7K	5%	1/16W	CN901		PIN, CONNECT	
R118 R119	1-210-029-11		6.8K	5%	1/2W	D901		DIODE GL453	
R120	1-220-300-91		6.8K	5%	1/2W	D001	0 7 10 007 10	D10D2 G2 1001	
11120	1 220 000 01	1120,01111	0.0	•	,,,	H901	8-719-061-28	DIODE HW-10	5C-FT-V (T REEL SENSOR)
R121	1-218-855-11	RES,CHIP	2.2K	0.50%	1/16W	H902	8-719-061-28	DIODE HW-10	5C-FT-V (S REEL SENSOR)
R122	1-216-841-11		47K	5%	1/16W	M901		DRUM ASSY (
R123	1-216-296-91	SHORT 0				M902			CD15A/C-NP (CAPSTAN)
						M903	X-3948-346-1	MOTOR ASSY	, L (LOADING)
		< SWITCH >				PH700	9.740.014.54	HIC CNA1312	KU16U
0101	1-570-711-11	SWITCH, SLIDE				PH701		HIC CNA1312	
S101 S102	1-570-711-11					Q901			SISTOR PT4850F (TAPE END)
3102	1-070-711-11	SWITCH, OLIDE	* A. A	Capture (16)	de ve des	Q902			SISTOR PT4850F (TAPE TOP)
						S700		SWITCH, SLIE	
		MISCELLANEOU	S						
		*****				S701		SWITCH, TAC	
						S702		SWITCH, TAC	
53		FP-14 FLEXIBLE				S901		SWITCH, PUS	
61		FP-8 FLEXIBLE B				S902	1-572-719-32	SWITCH, PUS	H (1 KEY)(REC PROOF)
62		FP-12 FLEXIBLE				\$903	1-771-325-11	ENCODER, RO	DTARY (SWITCH)(MODE)
103		FP-11 FLEXIBLE				Tour and		- marian	Street & 1822 Control of the Control
107	1-670-990-21	FP-23 FLEXIBLE	BOARD					ACCESSORIE	c
116	1-475-949-21	SWITCH BLOCK,	CONTRO	I (FK-4880)				*******	
119		CONNECTOR,EX							
152		FP-13 FLEXIBLE		,		\triangle	1-475-599-11	ADAPTOR, AC	C (AC-L10A)
157	1-670-977-21						1-543-798-11	FILTER, CLAM	IP (FERRITE CORE)
160	1-505-619-11	SPEAKER (2.0 CI	M)			\triangle	1-690-827 - 11		OWER (PD100P)
							1-475-950-21		MMANDER (RMT-811)
203	1-670-983-21						1-765-080-11	CORD, CONNE	ECTION (A/V)(1.5m)
217		HARNESS (CP-8					4 775 540 04	OODD DOWE	D (DD400)
218	1-958-984-11	•		D CATUOD	-	A	1-775-549-21	,	,
△ 221	1-517-754-21				E	Fig A	1-959-249-11		FOR KEYBOARD, WITH ADAPTOR)
222	1-803-274-21	MODULE, UNTO	IAL INDIO	ATION		Fig B	1-959-250-11		RALLEL PORT ADAPTOR
224	1-670-986-21	FP-19 FLEXIBLE	BOARD			1 ig B	1 000 200 11	100/11/11	(MSAC-PR1)
252		TERMINAL BOAR		RY			3-052-849-01	LID, HOOD (FO	OR WIDE CONVERSION LENS)
261		CONNECTOR, DO					3-053-100-01	CD-ROM, INS	TALL
263	1-670-985-21	FP-18 FLEXIBLE	BOARD						
303	1-670-984-11	FP-17 FLEXIBLE	BOARD						ONVERSION (58.5 Ø)
		TO 00 TI TI (ID) F	20122				3-053-550-01		ONVERSION (85 Ø)
310	1-670-987-21						3-865-078-11	MANUAL, INS	TRUCTION (ENGLISH)
318	1-670-978-11	FP-10 FLEXIBLE FP-20 FLEXIBLE					3-865-078-21	MANIELAL INC	(PD100/PD100P) TRUCTION (FRENCH)
352	8-753-023-51		DUAND				3-003-070-21	MANOAL, ING	(PD100/PD100P)
355 402	1-418-014-11		NIT				3-865-078-31	MANUAL INS	TRUCTION (GERMAN)(PD100)
402	1-410-014-11	MIGHOR FIGURE O					0 000 010 01	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
423	1-670-991-11	FP-37 FLEXIBLE	BOARD				3-865-078-41	MANUAL, INS	TRUCTION (ITALIAN)(PD100P)
425	1-670-989-21						3-865-272-11		TRUCTION (CD-ROM INSTALL)
426	1-670-988-21								(ENGLISH)
			,	ng S700, S	701, S702)		3-970-278-01		
453	1-758-174-11			A)			3-987-015-01		
460	A-7093-999-A	PRISM ASSY (PI					3-052-859-01	WIDE CONVE	RSION
			(Includir	ng three CC	ט (magers)		A 7000 701 A	ND FOOD DATE	TEDV DACK (DD100)
460	A 7020 040 A	PRISM ASSY (PI	11000						FERY PACK (PD100) FERY PACK (PD100P)
400	A-7030-940-A	FRIONI AGGT (FE		ng three CC	D imagers)				APTOR (MSAC-PC1) (WITH CASE)
			(moraum	ig tilloo oo	Compute	r		XLR BLOCK A	
				<	Action species and			CAP ASSY, LE	
		4		D-sub					
Ein D	Datatan	5		-pin			X-3949-154-1	HOOD ASSY, I	LENS
Fig B	Printer ca d/parallel port a		[] · co:	nnector			N		Maka
1-0 care	urparaner porta	H	ط				Note: The components	identified by	Note: Les composants identifiés par
\	\	- 4					mark ∆ or dotted		une marque \triangle sont critiques
					1		Δ are critical for	safety.	pour la sécurité.
						E	Replace only with specified.	n part number	Ne les remplacer que par une pièce portant le numéro spécifié.
					T				piece portantie numero specine.
1		- '	1			* K	eyboard		

6-36E

(PARTS REFERENCE SHEET)

You can find the parts position of location of mount locations applying to VC-208 board of a set.

VC-208 DSR-PD100/PD100P SIDE A

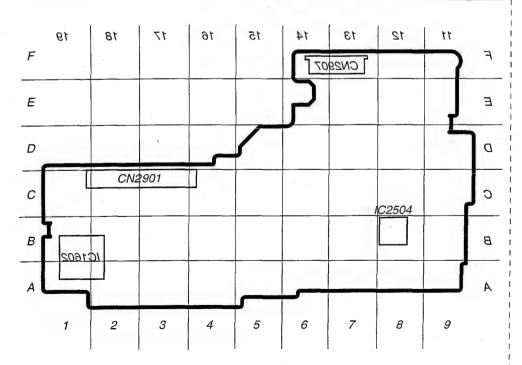


SIDE B DSR-PD100/PD100P VC-208

(PARTS REFERENCE SHEET)

You can find the parts position of location of mount locations applying to VI-151 board of a set.

VI-151 DSR-PD100/PD100P SIDE A



SIDE B DSR-PD100/PD100P VI-151

DSR-PD100/PD100P

SONY

SERVICE MANUAL

US Model Canadian Model DSR-PD1000 AEP Model DSR-PD100P

SUPPLEMENT-1

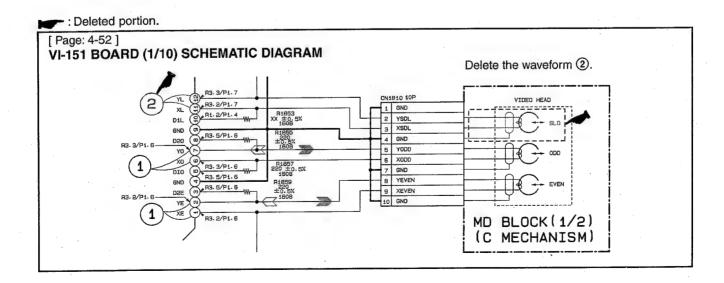
File this supplement-1 with the Service Manual. (EVB00374, EVB00850, EVB01385)

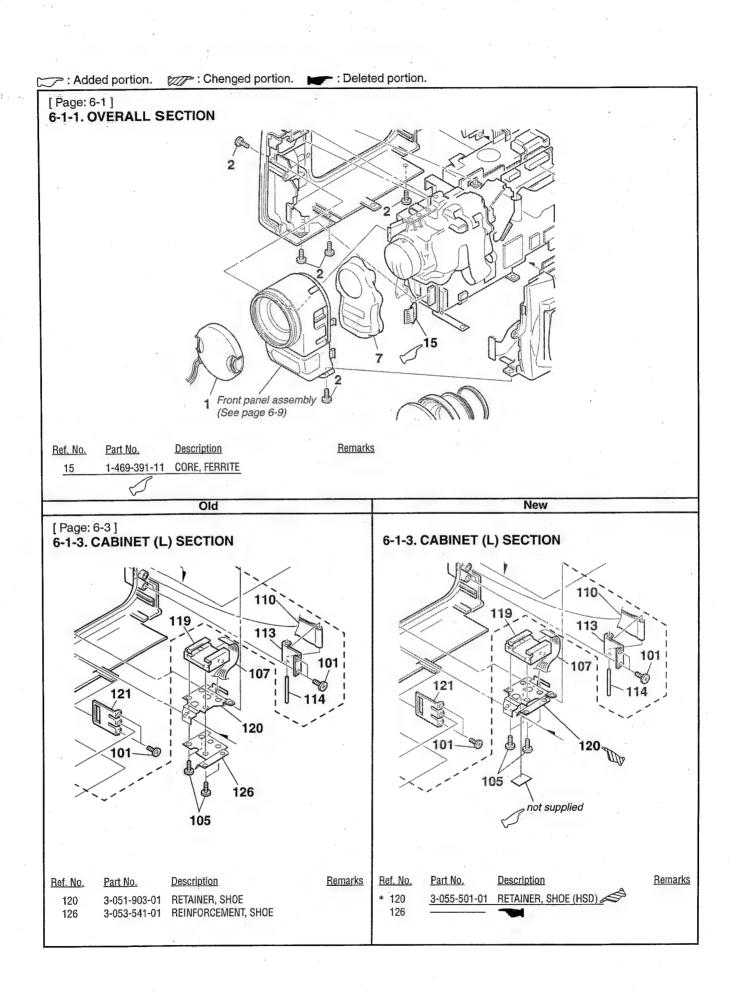
- The video head (SLD) circuit should be deleted from the schematic diagram...... (page 1)
- Several parts are added and changed...... (pages 2 to 4)
- The DC IN circuit is separated from the VI-151 board. A new independent printed wiring board PS-422 is newly added solely for the DC IN board................................... (pages 5 to 18)

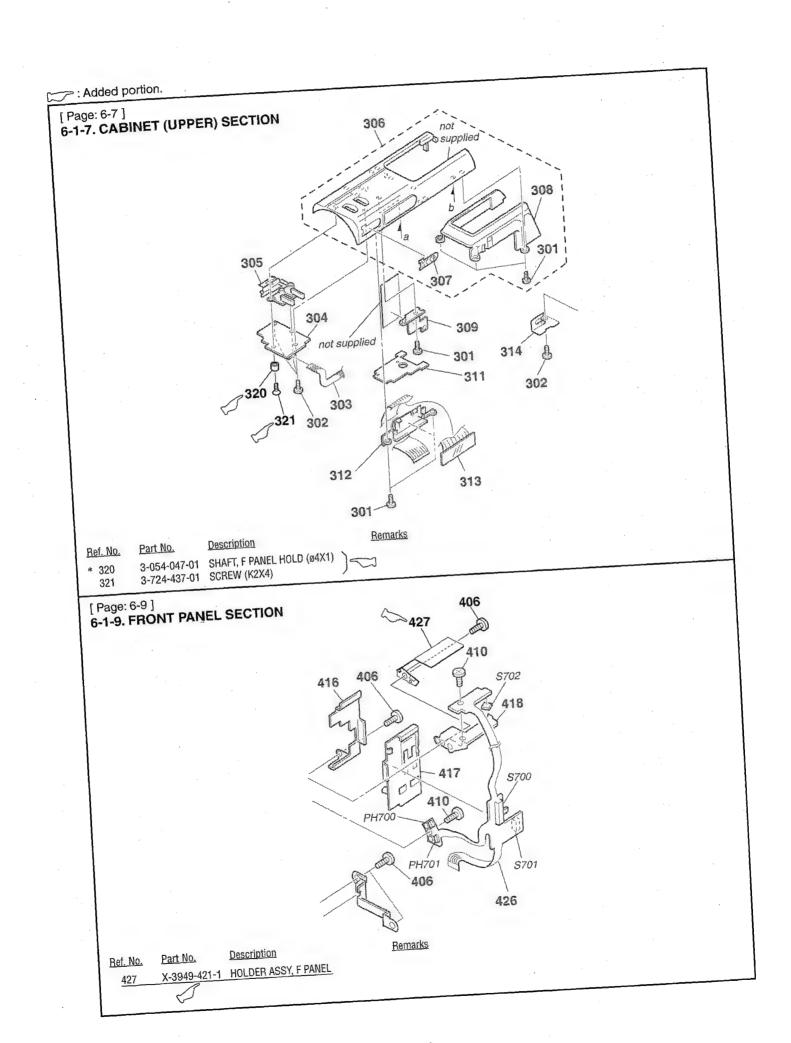
Applicable serial Nos.

Models	Serial Nos.
DSR-PD100	1000701 and higher
DSR-PD100P	undecided

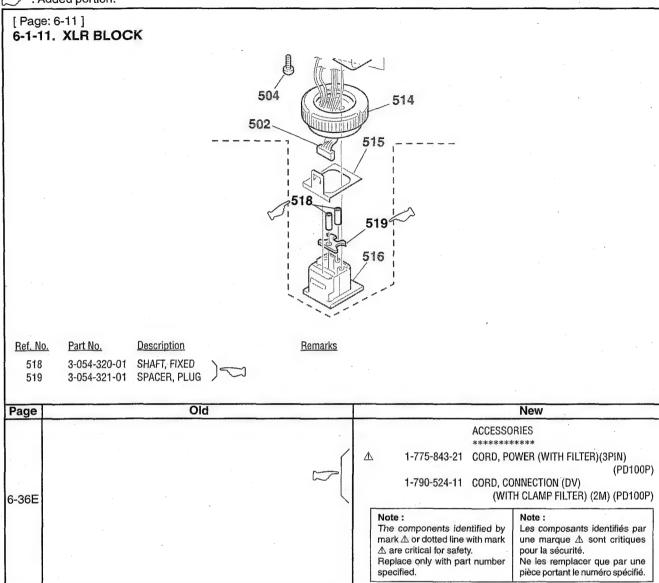
- Part number change of IC1602 on the VI-151 board.
 IC1602 : CXD3200R-T6 → SN104266PN-TEB
- Addition of MF ring assy (pages 19 and 20)
- · Add and correct your service manual.







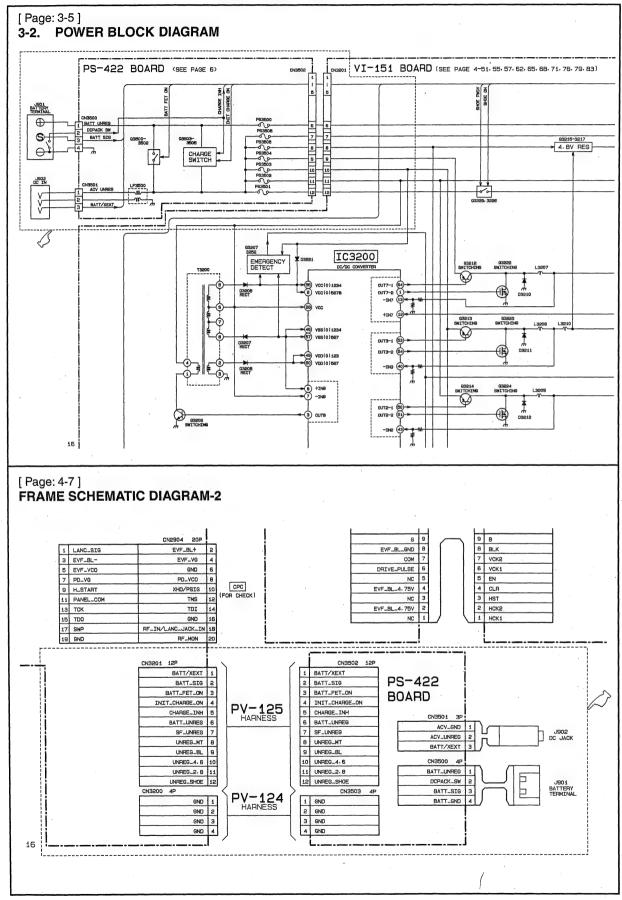


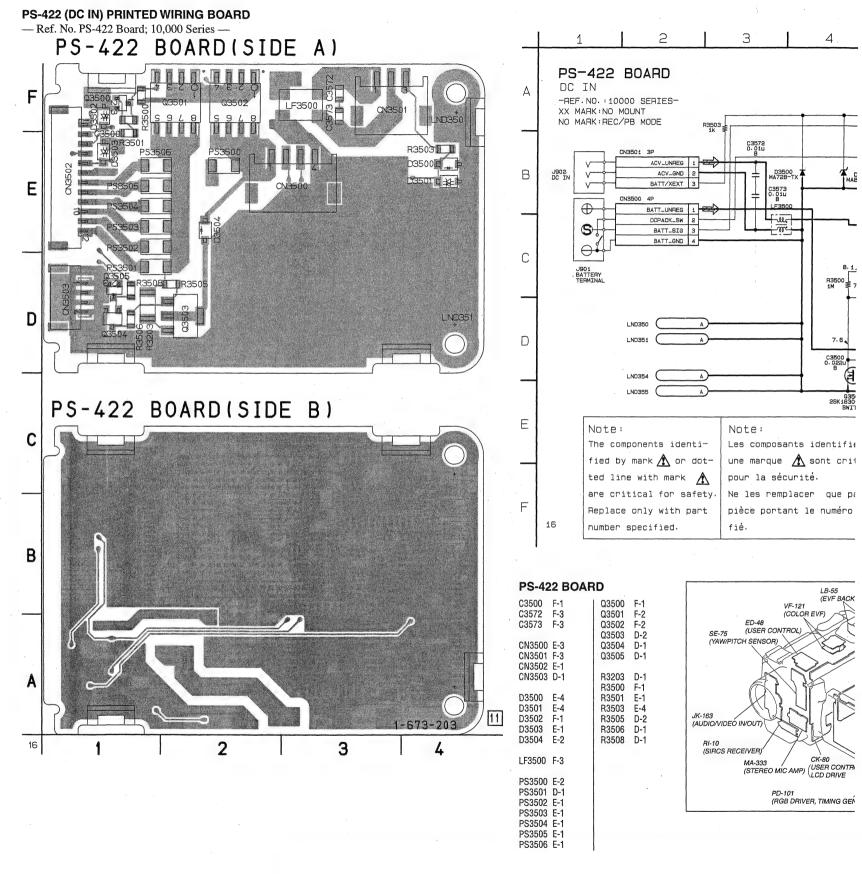


<>: Page No. shown in <> indicates the page to refer on this Supplement-1.

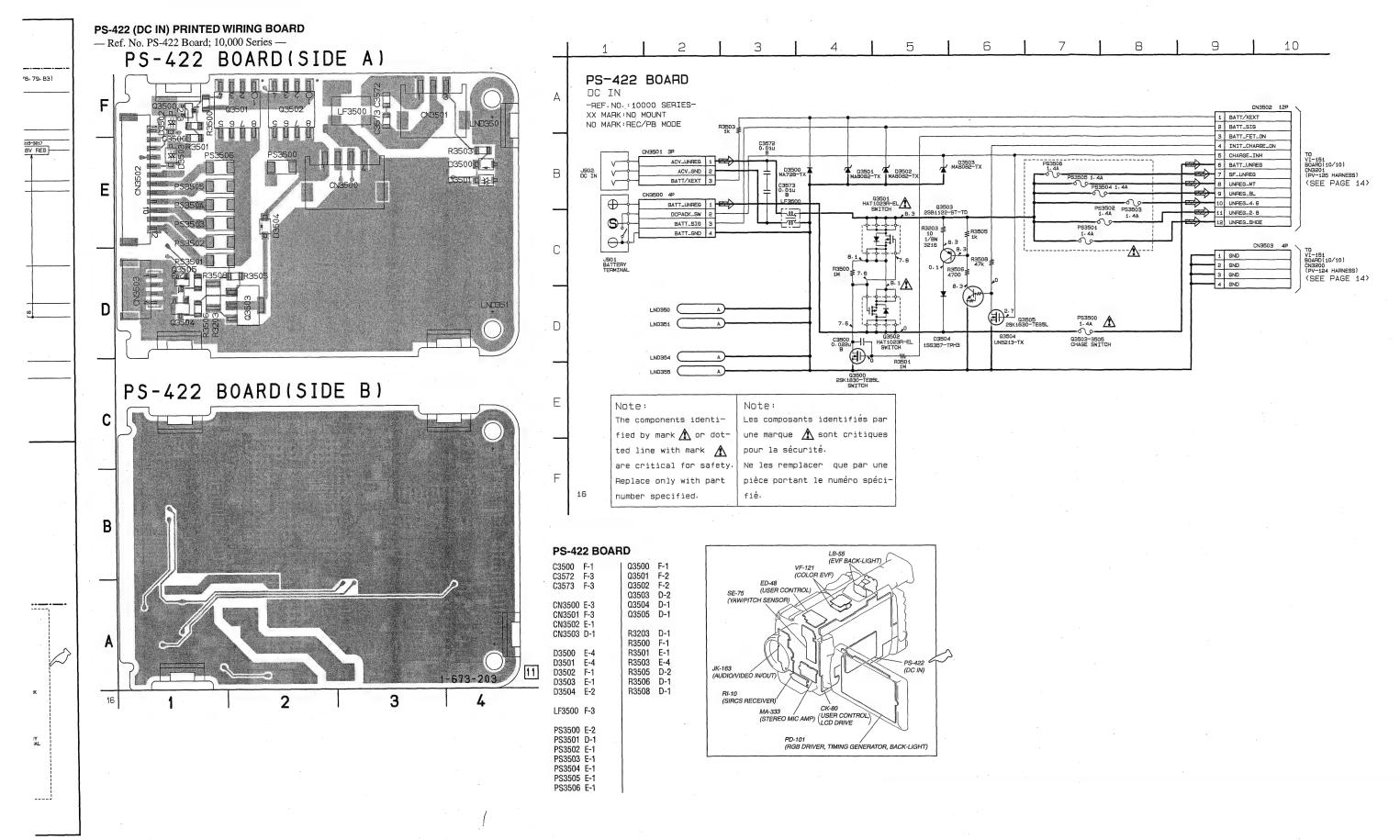
: Added portion.

[]: Page No. shown in [] indicates the page to refer on the original Service Manual DSR-PD100/PD100P.





nt-1. vice Manual



[]: Page No. shown in [] indicates the page to refer on the original Service Manual DSR-PD100/PD100P.

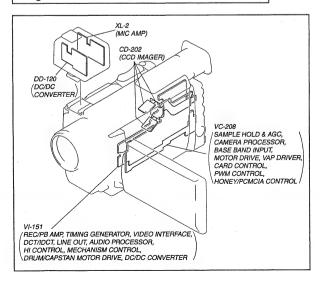
[Page: 4-90] PRINTED WIRING BOARD

- For printed wiring boards

 This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transi	stor	Dio	de
C B B E	6 5 4 ППП 1 2 3	3	4 2

There are few cases that the part printed on this diagram isn't mounted in this model.

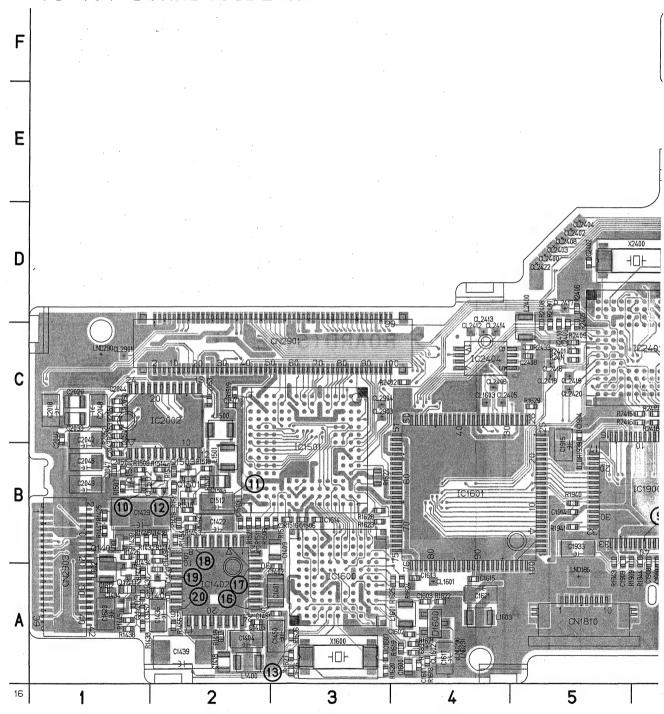


VI-151 BOARD (SIDE A)

VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, IR TRANSMITTER, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRIN

— Ref. No. VI-151 Board; 10,000 Series —

VI-151 BOARD(SIDE A)

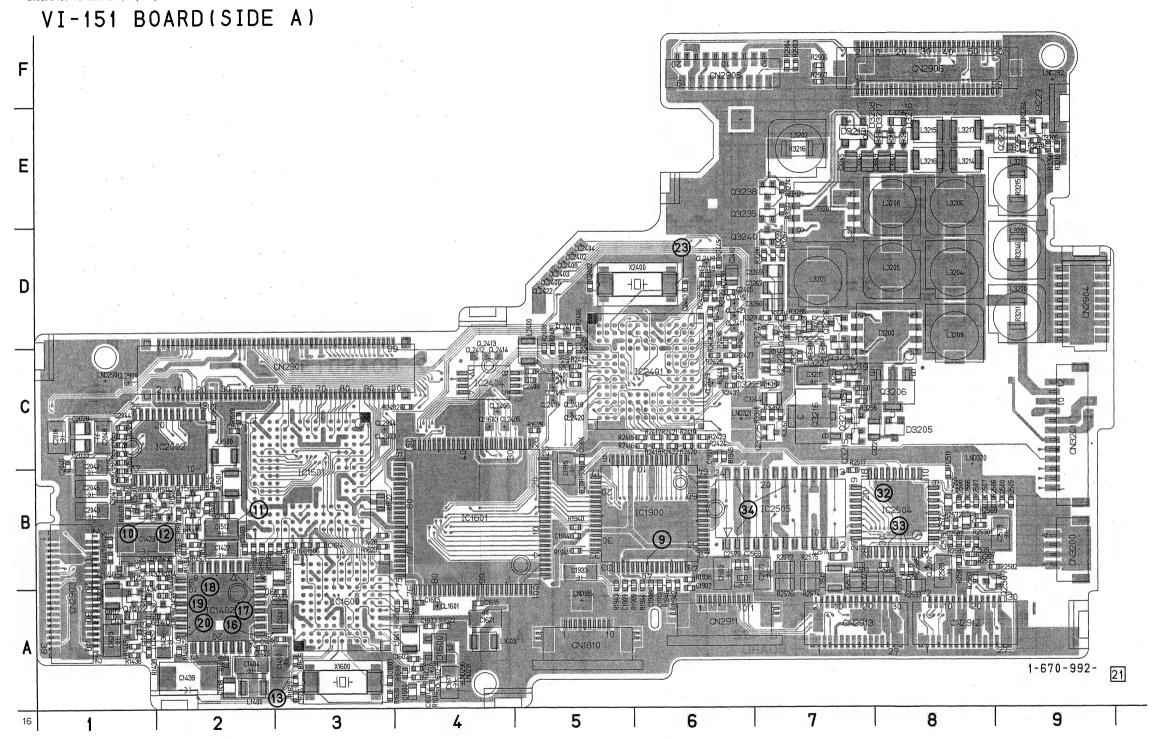


DARD (SIDE A)

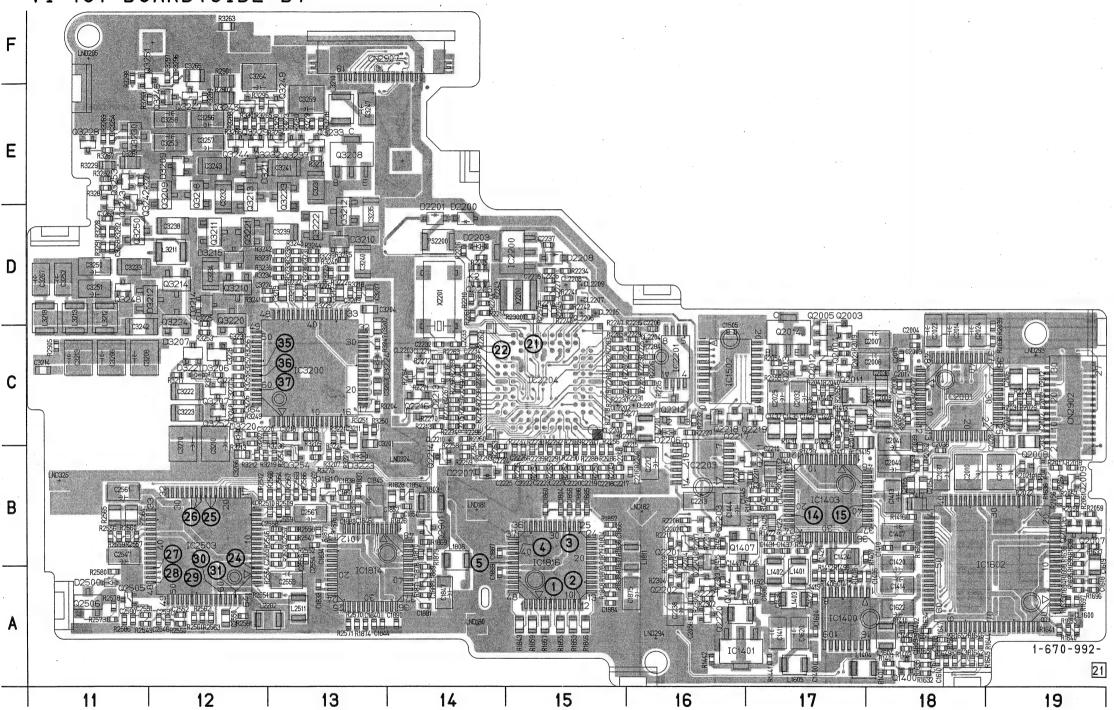
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VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, IR TRANSMITTER, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRING BOARD

- Ref. No. VI-151 Board; 10,000 Series -



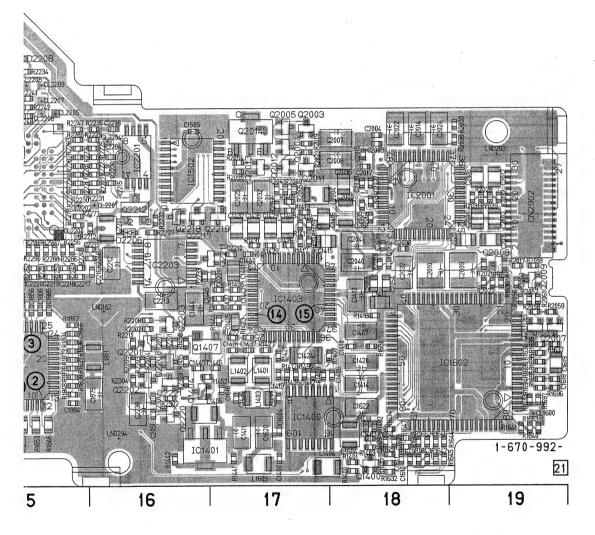
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VI-151 BOARD (SIDE B)

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400 403	A-17 A-18	C2016 C-19 C2017 C-18	C3220 C-12 C3222 C-12	L1605 A-17 L1803 B-14	R140
406	A-18	C2022 C-18	C3223 C-12	L1808 B-14	R140
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1413 1414	B-18 A-18	C2030 C-18 C2031 C-19	C3228 C-12 C3229 C-12	L2202 A-13 L2511 A-13	R140 R140
415	C-17	C2032 C-17	C3230 C-12	L3210 E-13	R140
416 417	C-17 B-18	C2034 C-18 C2035 C-18	C3231 E-13 C3232 E-12	L3211 D-12 L3212 D-11	R141 R141
419	A-17	C2036 C-18	C3233 D-11	L3213 D-11	R141
420	B-18 B-17	C2037 B-18 C2038 B-18	C3234 D-12 C3235 D-13	L3218 D-11	R141
1421 1424	B-17	C2038 B-18 C2039 B-18	C3238 D-13	PS2200 D-14	R141 R141
425	B-17	C2040 B-18	C3239 D-13		R141
426 427	B-17 A-17	C2041 C-18 C2054 B-18	C3240 D-13 C3241 E-13	Q1400 A-18 Q1404 A-16	R142 R142
428	C-17	C2055 B-18	C3242 C-11	Q1407 B-16	R142
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447	A-16	C2221 B-15	C3263 D-11	Q2200 B-16	R149
505	C-16	C2222 B-15	C3264 F-12	Q2201 B-16	R163
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833	A-13	C2237 D-15 C2238 A-16	D2201 D-14 D2203 D-14	Q2219 C-17 Q2220 A-16	R164 R164
834	B-13	C2239 C-14	D2206 C-16	Q2221 A-16	R164
837 838	B-13 B-13	C2546 A-12 C2547 B-11	D2207 B-14 D2208 D-15	Q2505 A-11 Q2506 A-11	R164 R164
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847 850	A-14 B-14	C2554 B-13 C2555 B-13	D3210 D-13 D3211 E-12	Q3210 D-12 Q3211 D-12	R165 R165
852	B-14	C2556 B-13	D3212 D-12	Q3212 D-13	R165
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860	B-15	C2559 B-13	D3220 C-12	Q3214 D-12 Q3218 E-12	R169 R169
866	B-15	C2561 B-11	D3221 C-12	Q3220 D-12	R169
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014	C-18	C3218 C-13	L1405 A-16	Q3254 B-13	R187
015	C-18 I	C3219 D-13	L1604 A-18		R187

ROCESSOR, PRINTED WIRING BOARD



VI-151 BOARD (SIDE B)

VI-151 BOAI	RD (SIDE B)						
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R3221 C-1 R3222 D-1 R3223 D-1 R3225 D-1 R3226 D-1 R3227 E-1 R3228 D-1 R3229 E-1 R3230 D-1 R3231 D-1 R3231 D-1 R3232 D-1 R3232 D-1 R3232 D-1 R3232 D-1 R3233 D-1 R3233 D-1 R3234 D-1 R3234 D-1 R3240 D-1 R3240 D-1 R3240 D-1 R3240 D-1 R3240 D-1 R3241 D-1 R3240 D-1 R3241 D-1 R3241 D-1 R3242 D-1 R3243 D-1 R3244 D-1 R3245 D-1 R3246 C-1 R3247 C-1 R3248 C-1 R3249 C-1 R3249 C-1 R3250 C-1 R3251 C-1 R3252 C-1 R3253 C-1 R3253 C-1 R3254 B-1 R3249 E-1 R3255 C-1 R3256 E-1 R3266 E-1 R3267 E-1 R3273 E-1 R3273 E-1 R3273 E-1 R3273 E-1 R3280 E-1 R3290 E-1 R3291 D-1 R3291 D-1 R3291 D-1 R3291 D-1 R3290 E-1 /th></th>	C3222 C-12 C3223 C-12 C3224 D-13 C3225 D-12 C3226 C-12 C3227 C-12 C3228 C-12 C3229 C-12 C3230 C-12 C3231 E-13 C3232 E-12 C3233 D-11 C3234 D-12 C3235 D-13 C3240 D-13 C3241 E-13 C3242 C-11 C3243 E-12 C3247 E-13 C3250 D-11 C3251 D-11 C3252 E-11 C3253 E-12 C3254 E-11 C3255 E-12 C3256 E-12 C3257 E-12 C3268 E-12 C3267 E-11 C3268 B-12 C3267 E-11 C3268 D-11 </th <th>L1803 B-14 L1808 B-14 L1811 B-16 L2004 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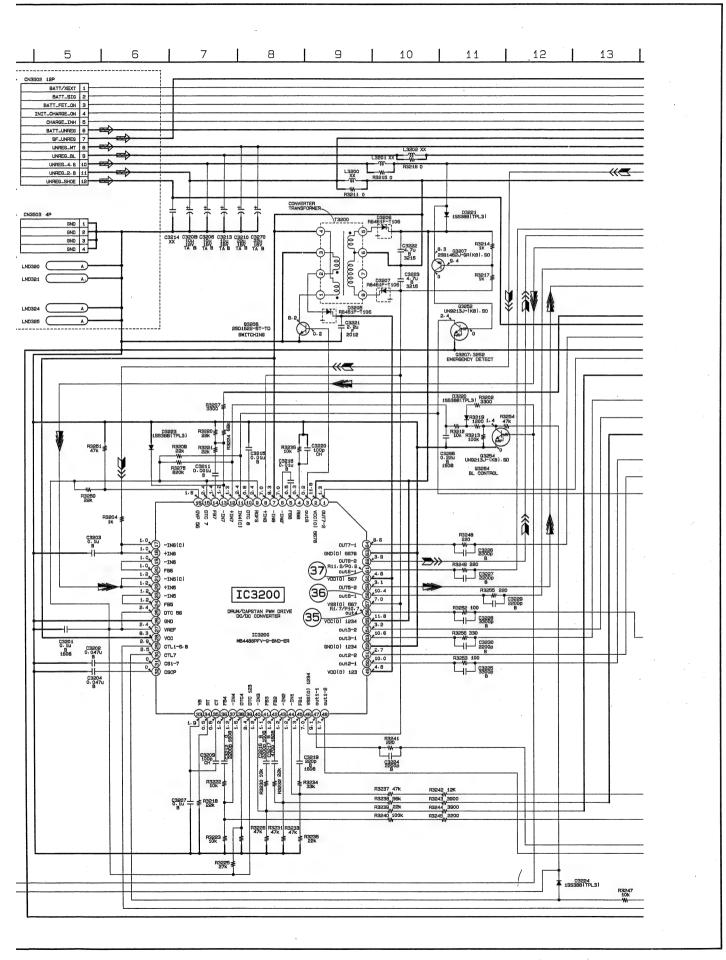
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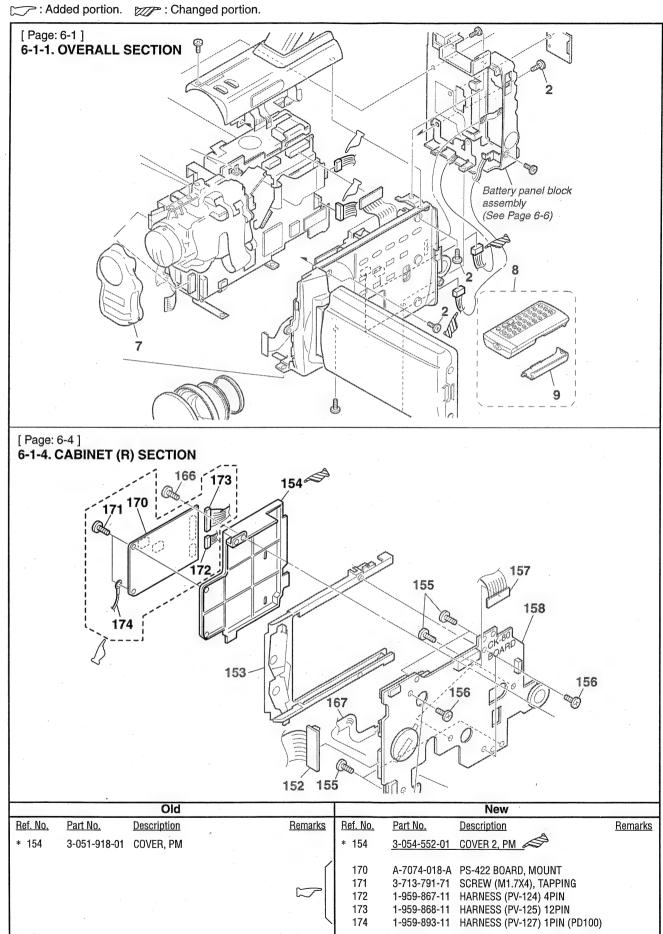
[]: Page No. shown in [] indicates the page to refer on the original Service Manual

TTP: Changed portion. DSR-PD100/PD100P. [Page: 4-83] SCHEMATIC DIAGRAM 8 9 10 | 11 | 12 | 13 | VI-151 BOARD(10/10)
DC/DC CONVERTER(DD BLOCK) T0 PS-422 BOARD CN3501 (SEE PAGE 7) NO MARK: REC/PB MODE
R REC MODE
P : PB MODE В ****** D Q3207-3252 EMERGENCY DETECT 83550 ₹ ₹ R3251 47k 28 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1 G •SIGNAL PATH REC REC/PB PB Drum servo (speed and phase) F3248 220 Wr 22826 B3249 220 Capstan servo (speed and phase) IC3200 R3252 100 1 C3202 0- 047u

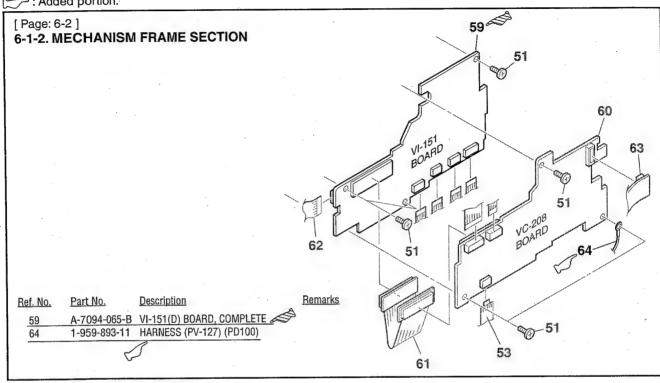
: Added portion. [Page: 6-1] 6-1-1. OVERALL SECT [Page: 6-4] **6-1-4. CABINET (R) SE** Ref. No. Part No. Desc * 154

3-051-918-01 COV





: Added portion.



6-2. ELECTRICAL PARTS LIST

: Chenged portion. : Deleted portion.

Page			Old				New					
6-27	Ref. No.		<u>Description</u> VI-151(D) BOA VI-151(D) BOA *******	RD, COMPL	.ETE (****		Re	f <u>. No.</u>	<u>Part No.</u> A-7094-065-B	Description VI-151(D) BOAR **********		Remarks 000 Series)
		1-107-819-11 1-580-057-11 1-691-550-11	CERAMIC CHIF PIN, CONNECT PIN, CONNECT	OR 4P				CN3200 CN3201	1-778-507-21 1-779-064-11	PIN, CONNECTO PIN, CONNECTO	R 4P	
6-29	D3200 D3201 D3202 D3203 D3204	8-719-421-27 8-719-420-14 8-719-420-14 8-719-420-14 8-719-056-48	DIODE MA728 DIODE MA808 DIODE MA808 DIODE 1SS38	82-TX 82-TX 82-TX								
6-30	⚠ PS3200 ⚠ PS3201 ⚠ PS3202 ⚠ PS3203 ⚠ PS3204 ⚠ PS3205	1-411-957-11 1-533-760-21 1-533-760-21 1-533-760-21 1-533-760-21 1-533-760-21 1-533-760-21	FILTER, COMM FUSE (SMD) 1. FUSE (SMD) 1. FUSE (SMD) 1. FUSE (SMD) 1. FUSE (SMD) 1. FUSE (SMD) 1.	.4A .4A .4A .4A .4A								
6-31	Q3200 △ Q3201 △ Q3202 Q3203 Q3204 Q3205	8-729-024-48 8-729-036-43 8-729-036-43 8-729-804-41 8-729-037-74 8-729-024-48	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	HAT1023R HAT1023R 2SB1122-5 UN9213J-(-EL -EL ST-TD K8).S	0						
6-34	R3200 R3201 R3203 R3205 R3206	1-218-989-11 1-218-989-11 1-216-150-91 1-218-953-11 1-218-961-11 1-218-973-11	RES,CHIP RES,CHIP RES,CHIP RES,CHIP RES,CHIP	1M 1M 10 1K 4.7K	5% 5% 5% 5% 5% 5%	1/16W 1/16W 1/8W 1/16W 1/16W						
6-35	R3303	1-218-953-11	RES,CHIP	1K	5%	-1/16W	/					

Added portion

					Ne	ew					
Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	<u>Description</u>			Remarks
	A-7074-018-A	PS-422 BOARD, C		·				< TRANSISTO	R >		
			(Re	f.No.:10	,000Series)	Q3500	8-729-024-48	TRANSISTOR	2SK1830-T	E85L	
			,			Q3501	8-729-036-43	TRANSISTOR	HAT1023R	-EL	
		< CAPACITOR >				Q3502		TRANSISTOR			
						Q3503		TRANSISTOR		3	
C3500	1-164-227-11		0.022uF	10%	16V	Q3504	8-729-402-42	TRANSISTOR	UN5213		
C3572	1-162-970-11		0.01uF	10%	16V	00505	0.700.004.40	TDANGIOTOD	001/4000 7	COCI	
C3573	1-162-970-11	CERAMIC CHIP	0.01uF	10%	16V	Q3505	8-729-024-48	TRANSISTOR	2SK1830-1	F82F	
		< CONNECTOR >						< RESISTOR :	•		
CN3500	1-580-057-11	PIN, CONNECTOR	4P			R3203	1-216-150-00	RES,CHIP	10	5%	1/16W
•	1-580-056-21	PIN, CONNECTOR				R3500	1-216-857-11		1M	5%	1/16W
CN3502	1-779-064-11	PIN, CONNECTOR	12P			R3501	1-216-857-11		1M	5%	1/16W
CN3503	1-778-507-21	PIN, CONNECTOR	4P			R3503	1-216-821-11	RES, CHIP	1K	5%	1/16W
					Q.	R3505	1-216-821-11	RES,CHIP	1K	5%	1/16W
		< DIODE >				Docoo		DEC CUID	4.71/	E0/	44014
20500	0.740.404.07	DIODE MAZOO				R3506 R3508	1-216-829-11		4.7K 47K	5% 5%	1/16W 1/16W
D3500 D3501	8-719-421-27 8-719-073-03	DIODE MA728 DIODE MA8082				R3508	1-216-841-11	RES,CHIP	4/K	5%	1/1000
D3501	8-719-073-03	DIODE MA8082				Note:		Not	a • ·		
D3502	8-719-073-03	DIODE MA8082					omponents iden		composants	identifiés	par
D3504	8-719-027-76	DIODE 1SS357-T	ГРН3			mark ∠ ∆ are	∆ or dotted line w critical for safety	rith mark une	marque Δ la sécurité.	sont critic	ques
		< LINE FILTER >				Replac	ce only with part ed.		es remplace e portant le ni		
LF3500	1-411-957-11	FILTER, COMMON	MODE					•			
		< FUSE >									
.∧ PS3500	1-533-760-21	FUSE (SMD) 1.4A									
		FUSE (SMD) 1.4A							**		
	1-533-760-21	FUSE (SMD) 1.4A									
	1-533-760-21	FUSE (SMD) 1.4A									
	1-533-760-21	FUSE (SMD) 1.4A			i						
⚠ PS3505	1-533-760-21	FUSE (SMD) 1.4A									
	1-533-760-21	FUSE (SMD) 1.4A									

: Added portion. : Chenged portion. : Deleted portion. New Old Page VI-151 BOARD (4/10) 18 19 20 21 16 17 15 14 126A02 0/P1.0 0/P1.4 Vnn XDVCN 100 4 101 6 103 103 4 103 LBUS3 CNA Si Si 5 LBUS2 XRST_PHY 2. 7 XRESETP -2.7 LIP_SLEEP LBUS1 PWD LBUSO -2.7 VDD VSS VSS IC1602 AVD1 VSS XENA AVD1 (P) XIEN DV INTERFACE 1000 (1000(4-63 FAL AVS1 ¥ TC1602 IFCLEAR 2.7 FCLB TPA TPA-TPB+ TEST 1 91698 56 ±0.6% AVD TEST2 1.9 TPBIAS TEST3 *R1633 (D1 TEST4 CL1600 R1640 TEST6 HP_JACK_IN * R1651 *H1632 *H1635 *H1652 R1649 XX 了 cig10 0.01u Ref. No. Part No. Description Remarks Remarks Ref. No. Part No. Description 16V C1610 CERAMIC CHIP 220PF 10% 1-164-933-11 C1610 6-27 1-125-777-11 CERAMIC CHIP 0.1uF 10% 100 16V C1611 1-164-858-11 CERAMIC CHIP 22PF 5% C1611 IC SN104266PN-TEB IC1602 8-759-566-52 6-30 IC1602 8-752-392-25 IC CXD3200R-T6 1.2K 0.50% 1/16W R1632 1-218-849-11 RES.CHIP R1632 1-218-990-11 SHORT 6.8K 0.50% 1/16W R1633 RES,CHIP R1633 1-208-703-11 1.2K 0.50% 1/16W R1635 1-218-849-11 RES.CHIP R1635 R1636 1-218-990-11 SHORT 12K 1/16W & RES, CHIP 5% 1-208-913-11 1-218-990-11 SHORT 0 R1638 R1638 R1639 R1639 1-218-990-11 SHORT 0 0 R1640 1-218-990-11 SHORT R1641 1-218-990-11 SHORT 0 R1641 0 R1642 1-218-990-11 SHORT R1642 1-218-990-11 SHORT R1643 R1644 1-218-990-11 SHORT 0 6-32 R1644 R1645 1-218-990-11 SHORT SHORT 1-218-990-11 R1646 R1647 0 R1647 1-218-990-11 SHORT

R1649

R1651

R1652

R1653

R1654

1-218-990-11 SHORT

1-218-990-11 SHORT

1-218-990-11 SHORT

1-218-990-11 SHORT

1-218-990-11

SHORT

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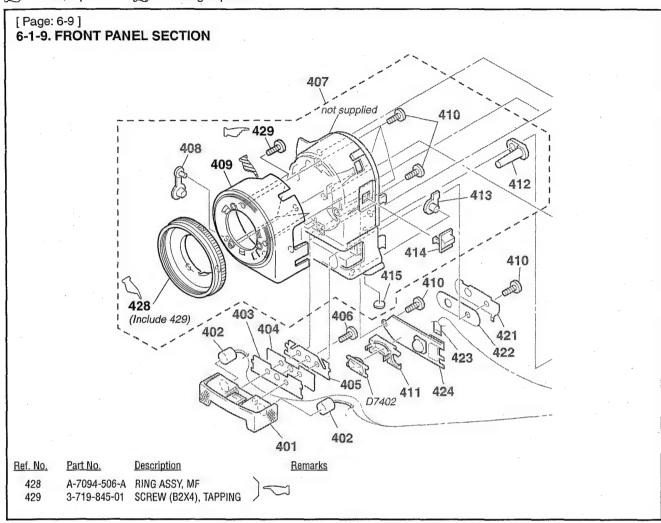
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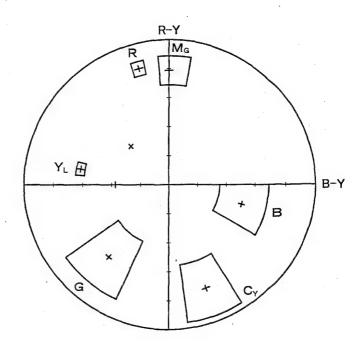
Page				New			
	3. C Page	Table	·				
			Remark				
	Address	Initial value					
	AB		Fixed data-1				
	_AC _						
5-52	i AD		Fixed data-2				
			Data IC1602 of VI-151 00 CXD3200R-T6	board			
			02 SN104266PN-TE	B			
1	AE -		Fixed data-1				
	AF		(Initialized data)				
	3-5-2. BIS	T Check					:
	1-4. IC160	0(SFD) BIST(F					
			: 01, and set data: 01. : AC, set data: 21, and press t	he DALICE	•		
	button						
		3) Select page: C, address: AD, and note down the data. When the data is "00", change it to "01" and press the PAUSE					
	button	on.					
5-66	When		change it to "03" and press t	he PAUSE			
	4) Select	page: 3, address:	11, set data: 04, and press t	he PAUSE			
	button 12) Select		: AC, set data: 20, and press t	he PATISE			·
	button			•			
		page: C, address: ess the PAUSE b	AD, set the data noted down	at step 3),			
			01, and set data: 00.				
	2-3. IC160	0(SFD) BIST(F	REC) Check	•			
	1) Select	page: 0, address:	01, and set data: 01.	. Ditrari			
	2) Select button.		AC, set data: 21, and press t	ne PAUSE			
			: AD, and note down the dat		•		
	button.		change it to "01" and press the	ne PAUSE I			
5-68			change it to "03" and press the	ne PAUSE			
	button. 4) Select		11, set data: 04, and press the	ne PAUSE			
	button.		AC, set data: 20, and press the	he DATICE			1
]	button.						
	12) Select	page: C, address: ess the PAUSE bu	AD, set the data noted down	at step 3),			
			01, and set data: 00.				



DSR-PD100/PD100P

⟨FOR CAMERA COLOR REPRODUCTION ADJUSTMENT⟩

Take a copy of CAMERA COLOR REPRODUCTION FRAME and Parts referencesheets with a clear sheet for use.



DSR-PD100/PD100P

DSR-PD100/PD100P

SONY

TECHNICAL MEMO

No.

NPV-995022

Category

Date

August 24, 1999

Sony Corporation, PV Co.

SL

Subject

Audio System Check Procedure When XLR Adapter Is Used (Addition to Service Manual)

MODEL

DSR-PD100, DSR-PD100P, DSR-PD100A, DSR-PD100AP

[Contents]

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTER) is issued as attached as the service information.

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

[Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-11, and perform the checks.

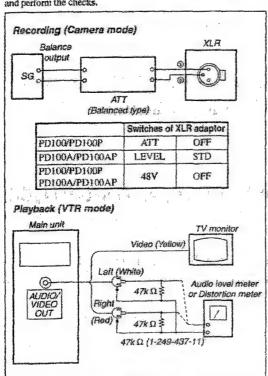


Fig. 5-3-11

1. Overall Level Characteristics Check

Mode	Camera recording and playback			
Signal	400 Hz, -60 dBs signal: XLR jack @ and ③ (balance input)			
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack			
Measuring Instrument	Audio level meter			
Specified Value	-7.5 ± 5.0 dB≠			

Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack. 1)
- Record in the camera mode.
- 3) Playback the recorded section.
- Check that the 400 Hz signal level is the specified value.

2. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

Checking Method:

- Input the 400 Fiz, -60 dBs signal in the XLR jack.
- Record in the camera mode.
- Playback the recorded section.
- Check that the distortion is the specified value.

3. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the XLR jack.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

Checking Method:

- Insert a shorting plug in the XLR jack. (Short pins-② and ③.)
 Record in the camera mode.
- Playback the recorded section.
- 4) Check that the noise level is the specified value.

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DSR-PD100/PD100P

SONY

SERVICE MANUAL

US Model Canadian Model DSR-PD100 AEP Model DSR-PD100P

SUPPLEMENT-2

File this supplement-2 with the Service Manual. (99-016)

Contents: Addition of Adjusting Procedure
3-7. AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

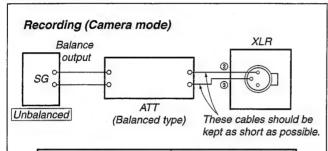
 The SERVICE MANUAL of the model DSR-PD100/PD100P that has already been published earlier, did not have the AUDIO SYSTEM CHECK for when the XLR adaptor is connected. This supplement describes the AUDIO SYSTEM CHECK procedure when signal is input using XLR adaptor.

[]: Page No. shown in [] indicates the page to refer on the original Service manual DSR-PD100/PD100P.

3-7. AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR) [page 5-70]

[Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-12, and perform the checks.



MODEL	Switches of	XLR adaptor
DSR-PD100/PD100P	ATT	OFF
DSR-PD100A/PD100AP	LEVEL	STD
DSR-PD100/PD100P DSR-PD100A/PD100AP	48V	OFF

Playback (VTR mode)

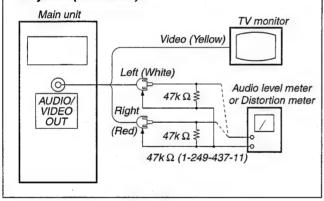


Fig. 5-3-12

1. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 5.0 \text{ dBs}$

Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- Check that the 400 Hz signal level is the specified value.

2. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- 2) Record in the camera mode.
- Playback the recorded section. 3)
- Check that the distortion is the specified value.

3. Overall Noise Level Check

	and the second s
Mode	Camera recording and playback
Signal	No signal: Short pins-2 and 3.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

Checking Method:

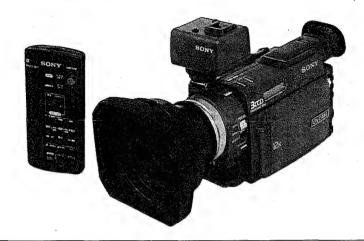
- Short pins-2 and 3.
- Record in the camera mode. 2)
- 3) Playback the recorded section.
- Check that the noise level is the specified value.

DSR-PD100A/PD100AP

SERVICE MANUAL







US Model Canadian Model DSR-PD100A AEP Model DSR-PD100AP

C MECHANISM

Differences Manual

- DSR-PD100A/PD100AP is based on DSR-PD100/PD100P.
- This Service Manual daceribed only the difference from DSR-PD100/PD100P (US/Canadian/AEP Model) Service Manual (9-974-114-11) and Supplement-1 (9-974-114-81).

 DSR-PD100A (NTSC)
 DSR-PD100AP (PAL)

316

- Main Difference
 - XLR adaptor S102 is changed. (ATT SWITCH → LEVEL SWITCH)

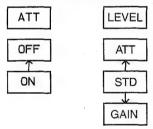


Table for Differences of Completed Board

	DSR-PD100/PD100P	DSR-PD100A/PD100AP
MA-333 Board	A-7073-734-A	A-7074-072-A
XL-2 Board	A-7073-738-A	A-7074-073-A

DVCAM DIGITAL CAMCORDER





6. REPAIR PARTS LIST 6-1. EXPLODED VIEWS

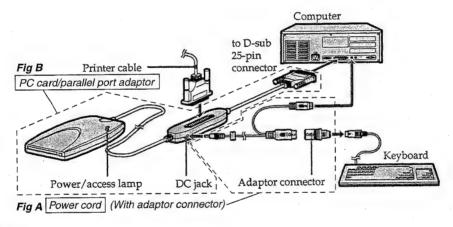
Page		DSR-PD100/PD100P			DSR-	PD100A/PD100AP
60	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
6-9	420	A-7073-734-A	MA-333 (D) BOARD, COMPLETE	420	A-7074-072-A	MA-333 (A) BOARD, COMPLETE
6-11	503 511 517	A-7073-738-A	BOX (UPPER) ASSY, TERMINAL XL-2 MOUNT XLR BLOCK ASSY	503 511 517	A-7074-073-A	BOX (UPPER) ASSY, TERMINAL XL-2 (A) MOUNT XLR BLOCK ASSY

6-1. ELECTRICAL PARTS LIST

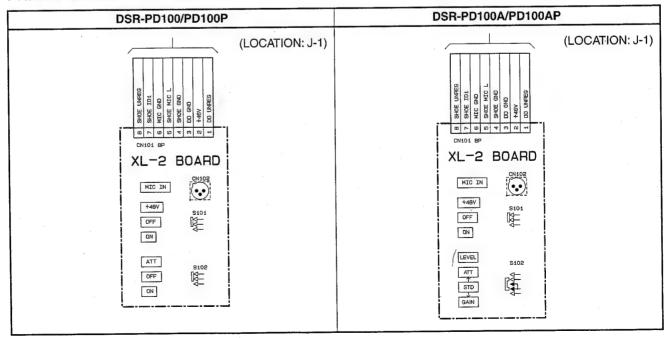
Page	DSR-PD100/PD100P					DSR-	PD100A/PD10	0AP				
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
			MA-333 (D) BOA						MA-333 (A) BOAI			
			< CAPACITOR >						< CAPACITOR >			
<i>c</i> 10	C7301 C7305	1-162-970-11	CERAMIC (CHIP)	0.01uF	10%	25V	C7301 C7305 C7310		CERAMIC (CHIP) CERAMIC (CHIP)		10% 10%	25V 16V
6-18	C7310	1-102-908-11	CERAMIC (CHIP)	0.0047u	IF 10%	300	C7358		CERAMIC (CHIP)	0.1uF	10%	50V
		•	<diode></diode>						< DIODE >			
E.	D7305	8-719-420-41	DIODE MA8082-	-TX			D7305	8-719-037-03	DIODE MA8082(K8).S0		
			< FERRITE BEAD	>					< FERRITE BEAD	> ·		
							FB732	1-500-444-11	FERRITE Out			
			< RESISTOR >						< RESISTOR >			
6-19	R7302 R7311 R7312	1-500-444-11 1-216-839-11 1-216-836-11	METAL CHIP	33K 18K	5% 5%	1/16W 1/16W	R7302 R7311 R7312	DELETE 1-216-864-11 1-216-841-11		0 47K	5% 5%	1/16W 1/16W
	R7354	1-216-845-11	METAL CHIP	100K	5%	1/16W	R7354	1-216-842-11	METAL CHIP	56K	5%	1/16W
			XL-2 BOARD, CC						XL-2 (A) BOARD,			
6-35		•	< DIODE >						< DIODE >			
	D107 D108		DIODE MA8082				D107 D108		DIODE MA8082 DIODE MA8082			

DSR-PD100A/PD100AP

Page		DSI	R-PD100/PD100P		DSR	-PD100A/PD100AP
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
			< RESISTOR >			< RESISTOR >
	R123	1-216-296-91	SHORT 0	R123 R124	1-218-833-11 1-211-987-11	METAL CHIP 270 0.5% 1/16W METAL CHIP 56 0.5% 1/16W
			< SWITCH >			< SWITCH >
	S102	1-570-711-11	SWITCH, SLIDE (ATT ON/OFF)	S102 ·	1-762-217-21	SWITCH, SLIDE (LEVEL (ATT, STD, GAIN))
			ACCESSORIES ************************************			ACCESSORIES **********
6-36E		A-7094-002-A	PC CARD ADAPTOR (MSAC-PC1) (WITH CASE))	A-7094-593-A	PC CARD ADAPTOR (MSAC-PC2) (WITH CASE)
	Fig A	1-959-249-11	CORD, CONNECTION (FOR KEYBOARD, WITH ADAPTOR)	Fig A	Delete	
	Fig B	1-959-250-11	PC CARD/PARALLEL PORT ADAPTOR (MSAC-PC1)	Fig B	Delete	
		3-865-078-11	MANUAL, INSTRUCTION (ENGLISH) (PD100/PD100P)		3-867-703-11	MANUAL, INSTRUCTION (ENGLISH) (PD100A/PD100AP)
		3-865-078-21	(PD100/PD100P) MANUAL, INSTRUCTION (FRENCH) (PD100/PD100P)		3-867-703-21	MANUAL, INSTRUCTION (FRENCH) (PD100A/PD100AP)
		3-865-078-31	MANUAL, INSTRUCTION (GERMAN) (PD100)		3-867-703-31	MANUAL, INSTRUCTION (GERMAN) (PD100AP)
		3-865-078-41	MANUAL, INSTRUCTION (ITALIAN) (PD100P)		3-867-703-41	MANUAL, INSTRUCTION (ITALIAN) (PD100AP)



[Page 4-5]
FRAME SCHEMATIC DIAGRAM-2



[Page 4-97] PRINTED WIRING BOARD

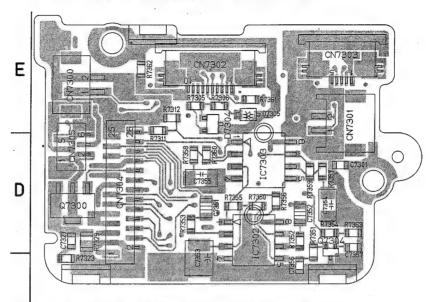
MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD

- Ref. No. MA-333 Board; 10,000 Series -

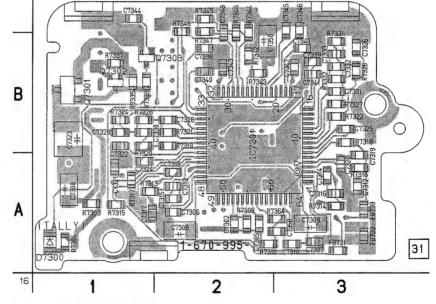
MA-333 BOARD(SIDE A)

MA-333 BOARD

C7300	A-1	C7351	D-2	R7314	A-3
C7301	D-3	C7352	D-3	R7315	A-1
C7302	A-2	C7353	C-2	R7316	A-3
C7305	A-2		D-3	R7317	A-1
C7306	A-2	C7355	D-2	R7318	B-3
C7307	A-3	C7356	C-3	R7319	B-2
C7308	A-2	C7357	D-3	R7320	B-1
C7309	A-3	C7358	A-3	R7321	B-2
C7310	A-2			R7322	B-3
C7312	A-3	CN7300		R7323	C-1
C7313	A-2	CN7301		R7324	B-1
C7314	A-3	CN7302		R7326	B-3
C7315	A-2	CN7303		R7327	B-3
C7316	A-3	CN7304		R7328	B-1
C7317	A-1	CN7305	D-1	R7329	D-1
C7318	A-2			R7331	B-3
C7319	A-3	D7300	A-1	R7332	B-3
C7320	A-3	D7304	E-2	R7335	B-1
C7321	A-1	D7305	E-2	R7337	B-1
C7322	B-1	FD=0.0		R7339	B-1
C7323	B-1	FB730	A-3	R7342	B-2
C7324	A-1	FB731	A-3	R7343	B-2
C7325	B-3 B-3	FB732	A-3	R7344 R7345	C-2 C-2
C7326 C7327	B-3 D-1	IC7301	B-2	R7345	C-2
C7328 C7329	B-2 B-1	1C7302 1C7303	D-2 D-2	R7347 R7348	B-2 C-2
C7329	B-1	167303	0-2	R7348	D-2
C7331	B-3	Q7300	D-1	R7351	D-2 D-3
C7331	B-3	Q7301	B-1	R7352	D-3
C7333	B-3	Q7301	B-1	R7353	D-3 D-2
C7338	B-2	Q7302	B-1	R7354	D-2 D-3
C7339	B-3		D-3	R7355	D-2
C7340	B-3 B-2	U/304	יס-ט.	R7356	D-3
C7341	B-3	R7303	A-1	R7357	D-3
C7342	B-3	R7304	A-1	R7358	D-2
C7343	B-2	R7305	E-2	R7359	D-3
C7344	C-1	R7306	E-2	R7360	D-2
C7345	C-3	R7309	A-2	R7361	E-2
C7346	C-3	R7310	A-2	R7362	E-1
C7347	B-3	R7311	E-2	R7363	D-3
C7348	C-2	R7312	E-2	R7364	A-3
C7350	B-2	R7313	A-1	.17004	
3,000	J _ 1				



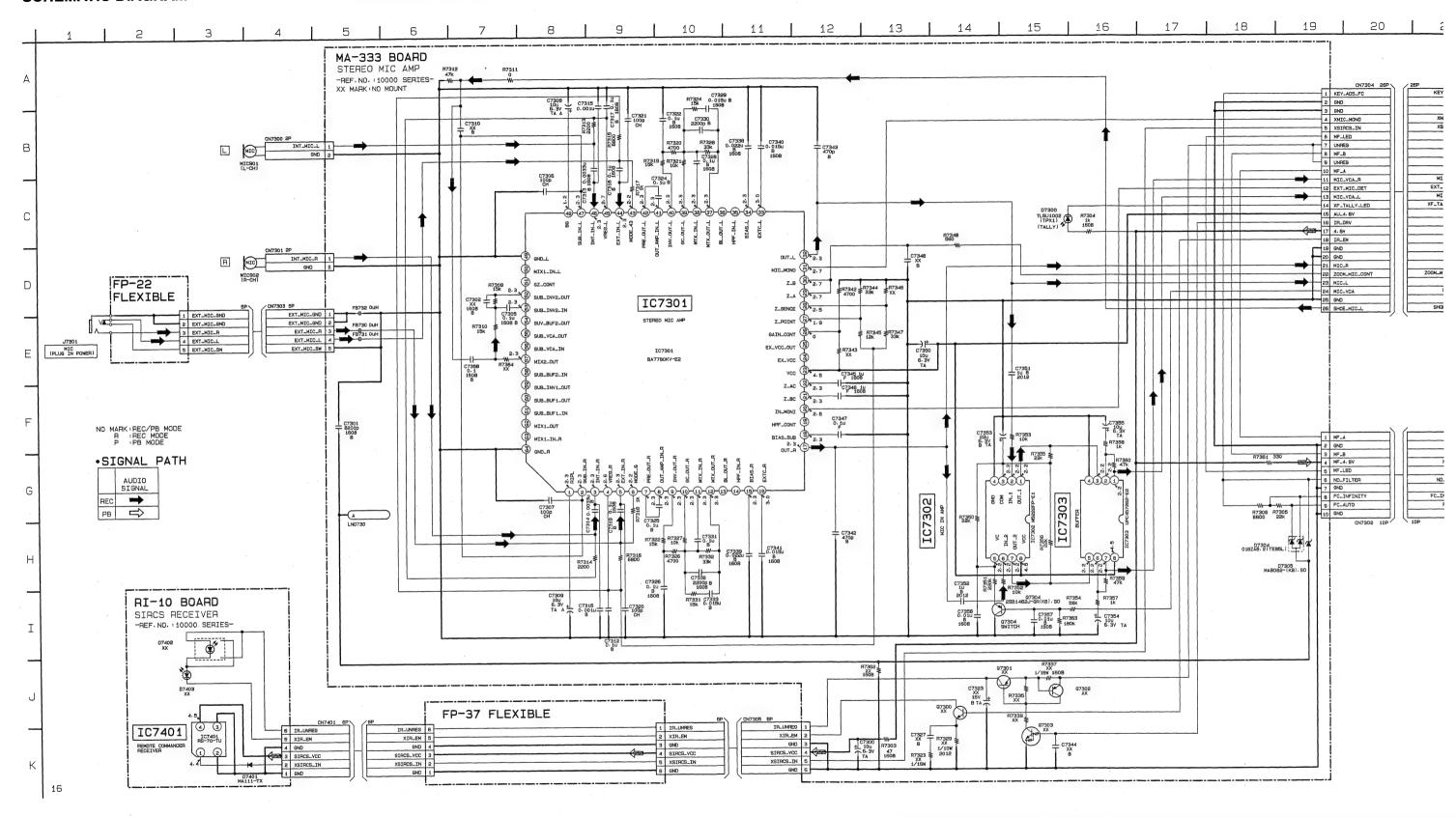
MA-333 BOARD(SIDE B)

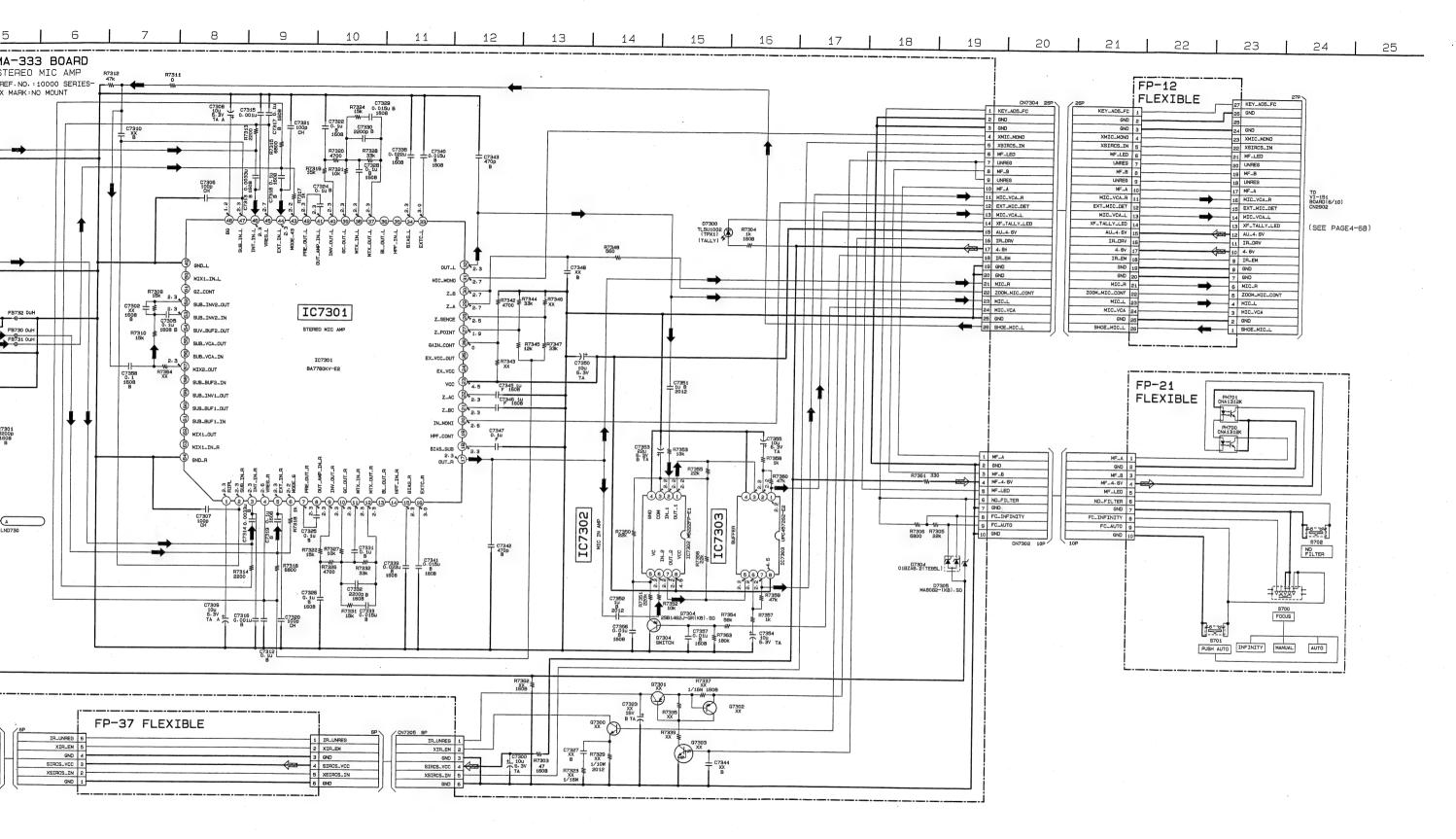


For printed wiring boards

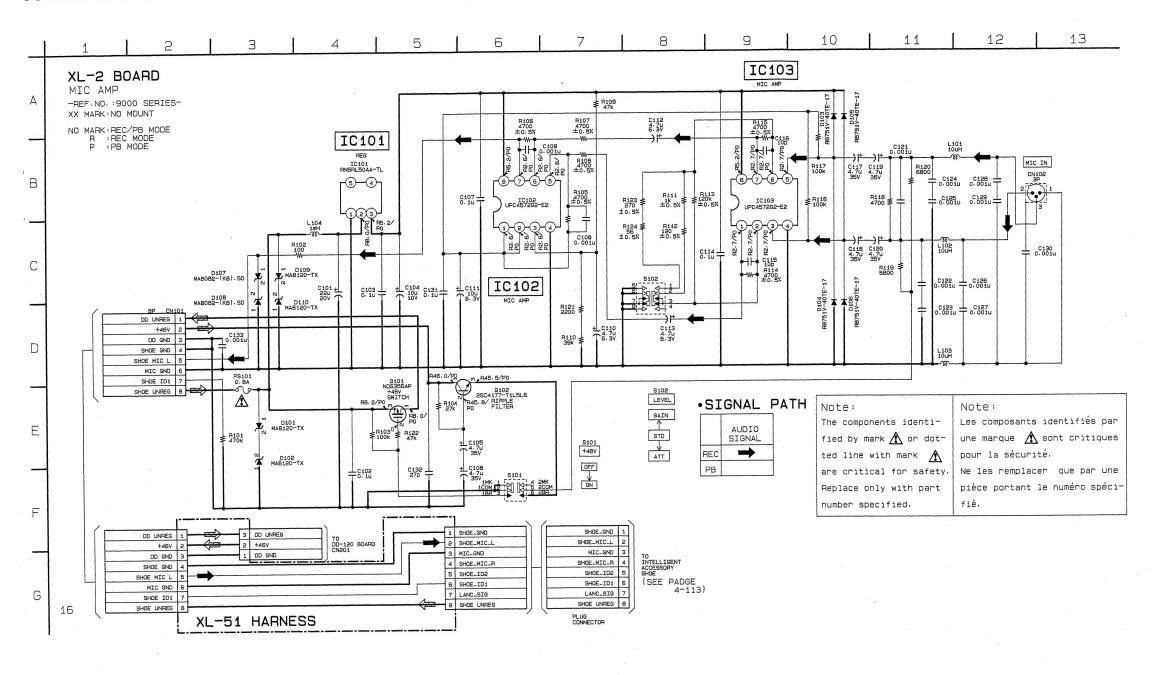
There are few cases that the part printed on this diagram isn't mounted in this model.

[]: Page No. shown in [] indicates the page to refer on the original Service Manual DSR-PD10/PD100P.





[Page 4-132] **SCHEMATIC DIAGRAM**



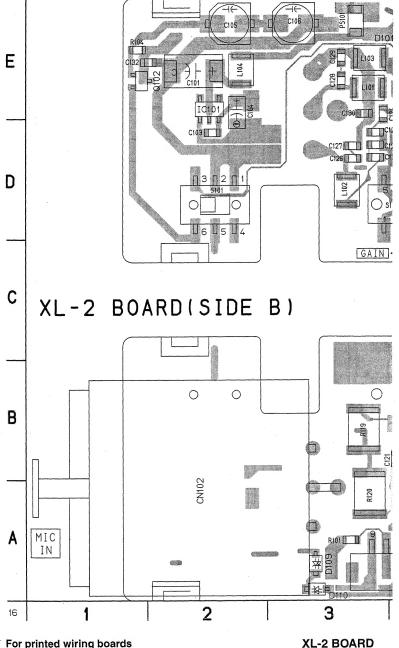
DSR-PD100A/PD100AP

[Page 4-131] **PRINTED WIRING BOARD**

XL-2 (MIC AMP) PRINTED WIRING BOARD

- Ref. No. XL-2 Board; 9,000 Series -

XL-2 BOARD(SIDE A)

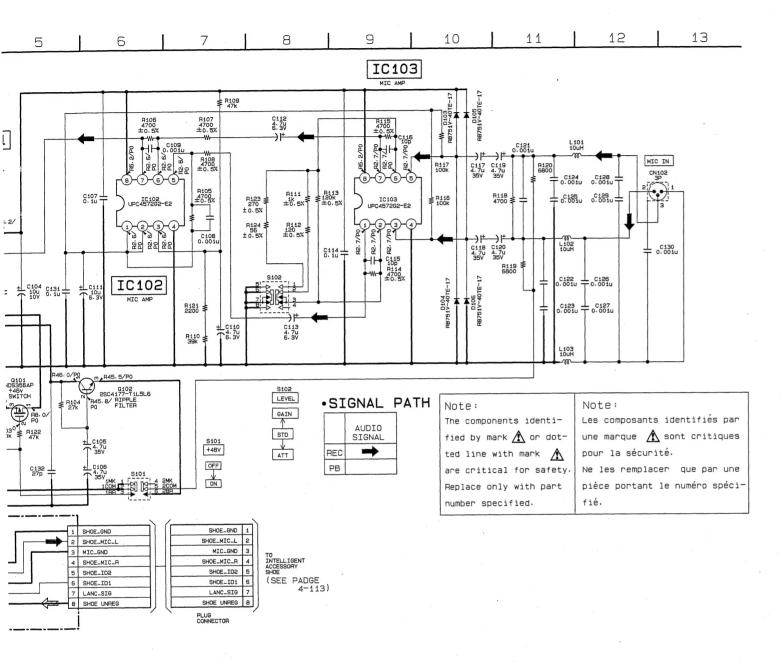


For printed wiring boards

There are few cases that the part printed on this diagram isn't mounted in this model.

C101 C102 C103 C104 C105 C106 C107 C108 C109 C111 C112 C113 C114 C115 C116 C117 C118	E-2 E-4 D-2 E-2 E-3 A-5 A-5 B-5 B-5 E-4 D-4 B-4 E-4	C118 C120 C122 C122 C122 C122 C122 C122 C123 C133 C13

Sony Corporation



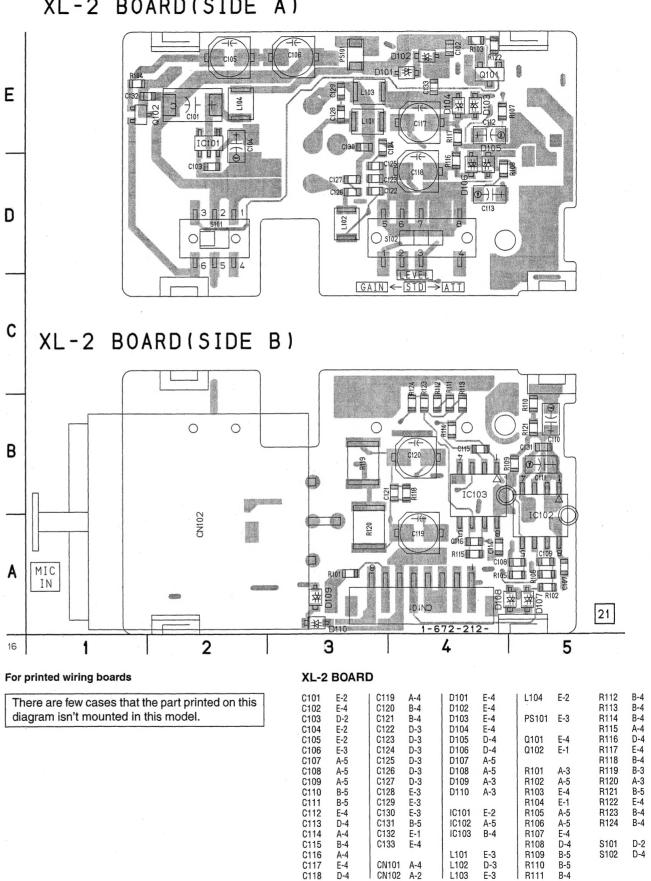
DSR-PD100A/PD100AP

[Page 4-131] PRINTED WIRING BOARD

XL-2 (MIC AMP) PRINTED WIRING BOARD

- Ref. No. XL-2 Board; 9,000 Series -

XL-2 BOARD(SIDE A)



Sony Corporation

Personal VIDEO Products Company **— 10 —**

C118

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B-4

L101

L102 L103

E-3

CN101 A-4 CN102 A-2

SONY

TECHNICAL MEMO

No.

NPV-995022

Category SL

Date

August 24, 1999

Sony Corporation, PV Co.

Subject

Audio System Check Procedure When XLR Adapter Is Used (Addition to Service Manual)

MODEL

DSR-PD100, DSR-PD100P, DSR-PD100A, DSR-PD100AP

[Contents]

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTER) is issued as attached as the service information.

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

[Connection of Audio System Measuring Devices] Connect the audio system measuring devices as shown in Fig. 5-3-11, and perform the checks.

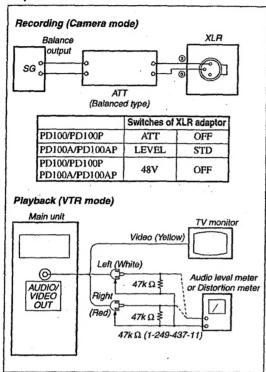


Fig. 5-3-11

1. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 5.0 dBs$

Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the 400 Hz signal level is the specified value.

2. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- Record in the camera mode,
- Playback the recorded section.
 Check that the distortion is the specified value.

3. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the XLR jack.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

Checking Method:

- 1) Insert a shorting plug in the XLR jack. (Short pins-2) and 3.)
- Record in the camera mode.
- Playback the recorded section.
- 4) Check that the noise level is the specified value.